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# A STUDY OF THE MOTIVATION OF MANAGERS IN MANUFACTURING ORGANISATIONS IN CONDITIONS OF CONTRACTION

VOLUME I

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## ABSTRACT

The study examines the motivation, values and work reactions of managerial job holders in manufacturing companies in a state of contraction.

The empirical investigation is in two parts. The first part, or pilot study, examines, through interviews, middle and junior managers in 3 manufacturing organisations in a state of contraction. The second part, or main study, again looks at middle and junior managers, in this case in 2 manufacturing organisations, but using repertory grid technique in addition to interviews.

Despite the amount of research that has been done on motivation at work, the thesis is seen as an exploratory study of the work motivation of managers. Because of the inadequacies of the literature, the study has taken a relook at motivation and broadly investigates the possible reasons for managers working hard or not, in contracting organisations.

The study emphasises the notion of work values. Work values are seen as a way of combining the broader explanations of work behaviour, particularly those of the Work Orientation school, with narrower psychological explanations, especially cognitive process theories. Particularly emphasised in the study are those values that may be tied in with an individual's self concept, and repertory grid is used to investigate these work values.

The main conclusion of the research is that a major factor which helps explain managerial motivation in a contracting environment is a manager's self image or self concept. Although self image is acknowledged in many motivation models, this study indicates that the notion is of central importance and should play a more dominant role in explanations of motivation.

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# CHAPTER 1

## INTRODUCTION

This research has been undertaken as a result of a number of concerns that have been raised in the literature on work in organisations. The problems that are considered in the thesis, centre around three of these areas of concern; contracting manufacturing organisations, work motivations and reactions, and middle managers.

In relation to the first area noted above, that of contracting manufacturing organisations, the subject is one that has not been well researched, but is of both importance and of current interest. Whetton (1980) has argued that organisational decline is a neglected topic of organisational science, and although topics such as motivation are affected by significant downward shifts in organisational size and profitability, seldom are these subjects researched in this context. Patton (1981), with regard to the USA, but also of relevance to this country in view of the economic circumstances, notes that the economic conditions have combined to create problems in motivation and productivity, and that the most serious personnel issue in the 1980s will result from the dramatic fall in the rate of promotion, which is one of the most potent motivating forces.

With regard to the second area, the subject of work motivation is one that, despite many years of research interest, still raises many theoretical and practical concerns, and is of central importance to organisational functioning, both in contracting and expanding organisations.

There are a number of theoretical approaches that one can adopt to study motivation. In recent years, cognitive process models have been dominant, at least on the other side of the Atlantic. On this side, the emphasis, perhaps, has been more on socio-psychological explana-

tions of work behaviour rather than the narrower psychological approaches. Particular emphasis has been placed on the factors the individual brings to work from the non-work environment, and a number of writers have argued that societal variables significantly influence the expectations the individual brings to the work situation and hence his behaviour in organisations. (Goldthorpe 1968, Daniel 1969, Smith 1978, Russell 1980). Both approaches have their limitations and the most fruitful end product would seem to be an integration of these two approaches attempted by such as Blunt (1981). Some integration is attempted in this thesis using the concept of values and the notion of the individual self concept as a central focus. However, while the end result is, what is believed to be, a fuller explanation of work motivation, any simple combination or integration is also shown to be difficult to make.

The third area of concern, that of managers, has been chosen for a number of reasons. The first stems from the comment noted earlier made by Patton, that the most serious personnel issue in the 1980s is the consequence that will result from the fall in the rate of promotion. If this is true, then, of the people remaining in contracting organisations, those who would be most likely to lose most, relatively, would seem to be middle managers, as they are most affected by the loss of promotion opportunity. Secondly, managers are also important because of their position within organisations. As they are responsible for motivating others, lack of effort, commitment or frustration on their part may have consequences throughout the whole organisation. Thirdly, the amount of empirical work investigating managerial activity is really very small. Glover (1977) in a review of the literature on managerial work notes that,

'Even those who have a nodding acquaintance with social scientific research in the area of work attitudes are aware that the motivations and activities of managerial level job holders have been explored to a far smaller extent than those of their subordinates. Managers are understandably reluctant to reveal their motives and intentions to outsiders, whereas they may be much more ready to allow outsiders research access to their subordinates.'

These three areas, then, combine to produce the title, 'A study of the motivation of managers in manufacturing organisations in conditions of contraction'. But perhaps one of the most important aspects of the research is not only these three particular elements, but the process of 'study' itself. As was implied above, little work has been done on the problems of contracting organisations. Thus, there is no ready made model, or even broadly accepted approach that could be used as a starting point for study, and the thesis is to some extent a journey, starting with the literature, through a number of organisational settings, to the research conclusions.

The structure of the thesis reflects this journey and is broadly divided into two parts. The first part, which examines the secondary sources relevant to the thesis, begins by looking at the individual and work (through the chapters on work motivation, work orientation and values), then outlines those aspects of the literature on managers of relevance to the thesis. The end product is an explanatory framework, derived from the literature, which might assist with an empirical investigation of the area.

The second part of the thesis is concerned with this empirical investigation, (primarily conducted using Kelly's (1955) repertory grid instrument), and the conclusions from it. The emphasis there is on the managers' self concept, particularly its composition, and the implications this has for the managers within the work environment. But first, let us start with the literature.

# SECTION 1

# LITERATURE REVIEW

# CHAPTER 2

# WORK MOTIVATION

## Introduction

The field of motivation has, of course, a relatively long history of study by researchers. The area is complicated with no generally agreed definition of motivation and with many different theories stemming from a number of different research traditions. The problem of definition is highlighted by Vroom (1964) who points out that,

> 'The term motivation has been used in almost as many different ways as the word work. Psychologists who use it often disagree about the specific processes to which it applies.'

Some useful categorisations of motivation theories have, however, been developed, such as that of Campbell, Dunnette, Lawler and Weick (1970), although not all models fit neatly into their scheme. Nevertheless, many authors since have used the categories they advocated, which are, 'mechanical' or 'process' theories, concerned with how motivation is aroused, maintained and satisfied, and 'content' or 'substantive' theories, concerned with trying to specify the variables that influence behaviour, rather than with the process by which they do it. Additionally, others, such as Wynn (1980) see another and separate approach, that of the social action perspective, which is concerned with understanding action in terms of the meaning that different situations hold for the actors involved.

This thesis is not, for the most part, concerned with specifying the rewards that are important motivators, but more with the way that factors encourage or determine one course of action rather than another, and the consequential behaviours. Thus, the interest here is in process rather than content theories. Nevertheless, as content or need theories figure in the literature on managers, considered later, and

reference is also made to content theorists in the next chapter on work orientation, it would be useful to give some consideration to these theorists at an early stage in the thesis. Consequently, before process theories are considered, a brief assessment will be made of the five theorists who have had most impact on the content area, Maslow, McGregor, Aldefer, Herzberg and McClelland.

## Content Theories

Motivation, according to Steers and Porter (1975) can be seen as a phenomenon that is primarily concerned with,

(i) what energises human behaviour,

(ii) what directs or channels such behaviour,

(iii) how this behaviour is maintained or sustained.

Process theories discussed later, as the name implies, are concerned with the general sets of actions involved in motivation; the overall relationships of (i) (ii) and (iii) above. The content studies outlined below, on the other hand, attempt to specify what are the variables that might initially impel the individual to behave in a certain way. While a consideration of dynamic relationships is not completely absent, the emphasis of content theories is on establishing taxonomies.

Perhaps one of the best known taxonomies is that of Maslow (1954), who postulated a hierarchy of human needs involving five levels. Starting at the lowest level, his need categories are, physiological needs, safety needs, belongingness or social needs, self esteem needs and self actualisation. Basic to Maslow's theory is the idea that needs at a particular level of the hierarchy must be largely 'satiated' before the needs at the next higher level become operative. Additionally, as Vinnicombe (1984) notes, as the individual moves up to the highest level (self actualisation), satisfaction of this need increases its importance rather than reduces it. Also, the number and variety of needs increases as an individual's psychological development takes place. Campbell and Pritchard (1976) point out that it

follows that if lower level needs are substantially satisfied in society, they may never be very important for energising and directing behaviour.

Although Maslow's need theory has had considerable exposure and some degree of popularity, it has also been widely criticised. Steers and Porter (1975) maintain that despite the great deal of attention the need hierarchy has received in the literature, very few attempts have been made to test the predictions that are derivable from it. Of the few studies that can be related to the theory, only the early research of such as Keys et al (1950) and Wolf (1958) lend support to the theory.

However, while these studies on the effect of starvation and thirst provide some support, they do so only at lower levels. Other research applicable to Maslow lends little support. In relation to the notion of prepotency, the studies of Hall and Nougaim (1968), and Aldefer (1969) did not find overall, as Maslow predicts, that as a lower level need is satisfied, the importance of that need decreases, while the importance of the next higher need increases. These two studies would seem to indicate, for example, that the satisfaction/importance relationships that are valid for one level of the need hierarchy might not be valid for other levels. Additionally, tests of the taxonomy itself would seem to be inconclusive, (e.g. Payne, 1970; Roberts, Walter and Miles, 1971; Herman and Hulin, 1973). The need hierarchy would certainly not seem to be as powerful and robust as it's fame might imply.

One of the reasons for the popularity of Maslow's theory, according to Steers and Porter (1975), may be due to the popularisation of the model by McGregor (1960 and 1967). McGregor's theory, which postulated two general sets of assumptions about human nature and their implications, theory X and theory Y, is seen by some (e.g. Murrell 1976) as a practical extension of Maslow's theory.

McGregor's (1960) postulation of theory X and theory Y has similarities not only to Maslow, but also to Herzberg (discussed later).

Murrell maintains that theory X can be equated with the first two of Maslow's hierarchy of needs, but also with Herzberg's hygiene factors, while theory Y can be equated with Maslow's three higher order needs. Theory X assumes that man is inherently lazy and unambitious and is motivated by lower order needs. Theory Y relates to the assumption that people see work as a natural human activity capable of providing enjoyment and fulfilment and which suggests they are motivated by their higher order needs.

The theory, according to Steers and Porter, and Murrell, has been widely discussed and used by both organisational theorists and practising managers. Theorists like Argyris (1971) have attempted to extend McGregor's work. However, McGregor produced his theories without making any attempt at their validation. Despite its popularity, little systematic empirical work has been done on the theory.

Another theory related to Maslow's, but having greater empirical validation than that of McGregor, is Aldefer's (1969 and 1972) ERG theory. He has attempted to reformulate the Maslow hierarchy into a more meaningful set of three basic needs labelled, existence needs, relatedness needs and growth needs. While one important aspect of the theory is Aldefer's taxonomy there is a also a process side concerned with the dynamic of two subjective states, labelled, satisfaction/ frustration and desire. Aldefer posits a number of relationships between these two. In general, he suggests that,

- the less a need is satisfied, the more a need is desired,
- the less a higher order need is satisfied, the more lower order needs are desired,
- the more a need is satisfied, the more higher needs are desired.

The term higher order is not used in the hierarchical sense that Maslow used it, but refers to the level of concreteness in the need objects. Contrary to Maslow's notion of prepotency, the need is always there and consciously recognised. Empirically, Aldefer's own study (1969) and that of Hall and Nougaim (1968) lend more support to Aldefer's position than to Maslow's in relation to prepotency. Moreover, another study of Aldefer's (1972) also seems to lend greater

support to his taxonomy. However, the studies in this area are hardly conclusive, and one should be cautious of the explanations derived from the results.

A slightly different kind of theory in the content area to the two mentioned so far, is that which attempts to specify taxonomies of job outcomes or rewards, that are important for explaining job behaviour. Perhaps, the most well known of these is Herzberg's two factor theory (Herzberg, Mausner and Snyderman, 1959). The initial framework for this theory was derived from a survey of 200 accountants and engineers. The two factor theory postulates the existence of two classes of work motivators, extrinsic and intrinsic factors, which is essentially a categorisation of two kinds of outcome or rewards.

Extrinsic, or hygiene factors, include pay, supervision, working conditions and job security. They are seen as rewards or sources of need satisfaction that stem from the organisational context and are somewhat divorced from the direct influence of the individual. The intrinsic factors, which consist of achievement, recognition, responsibility and advancement are viewed as derived from the individual's relation to the job itself.

There are a number of empirical problems in relation to the theory and Herzberg's work has caused considerable controversy. Nevertheless, while acknowledging these limitations, Steers and Porter argue that a significant contribution of Herzberg's work has been the tremendous impact it had in stimulating thought, research and experimentation on the topic of motivation at work. Steers and Porter argue that this contribution should not be overlooked. Before 1959 little research had been carried out in the area of work motivation (with the exception of such as Viteles, 1953, and Maier, 1955), and the research that did exist was largely fragmentary. Maslow's need hierarchy, and McClelland and Atkinson's work on achievement motivation (considered later) were largely concerned with laboratory based findings or clinical observations, and neither had seriously addressed the problems of the workplace at that time. Herzberg filled this void by specifically

calling attention to the need for increased understanding of the role of motivation in organisations.

It is true, as Steers and Porter note, that several research studies have been generated as a result of the so called 'Herzberg controversy'. But while some of these articles support Herzberg's position (e.g. Whitsett and Winslow, 1967; Bockman, 1971) others seriously question the research methodology underlying Herzberg's theory. House and Wigdor (1967) reviewed forty studies which were critical of the two factor theory on three main grounds. Firstly, Vroom (1964) has suggested that the use of the critical incident technique used by Herzberg produces biased results. For instance, when things are going well, people will tend to put themselves in the best light, but when they are describing a situation where things are going badly, they will protect their self images by blaming failure on to the environment, or on to others. Secondly, the responses were evaluated by a rater which could lead to rater bias. Thirdly, no overall measure of satisfaction was used by Herzberg. An individual may dislike some features in a job, but may still find the job overall highly acceptable. House and Wigdor conclude that the two factor theory is an oversimplification of a very complex relationship between motivation, satisfaction and job performance.

The last area of theoretical development worthy of note is the work of McClelland (1951) and his associates. He postulated three need categories, power, affiliation and achievement. These categories are not seen as mutually exclusive, although one need will predominate for any one individual.

Much of McClelland's research (1953 & 1963) has been centred on one need in particular, that of achievement (abbreviated to 'n Ach'). The achievement motive is seen as a relatively stable notion and is defined as 'behaviour toward competition with a standard of excellence' (McClelland, Atkinson, Clark and Lowell, 1953). The basis or reward for such a motive is posited to be the positive effect associated with successful performance. McClelland and his colleagues

present a series of primarily laboratory studies indicative of a strong positive relation between high need for achievement and high levels of performance and executive success (McClelland 1951, McClelland et al 1953, Atkinson 1958, Atkinson and Feather 1966). More recent studies, both in the field and in the laboratory, have tended to support such a conclusion, (Cummin, 1967; Wainer and Rubin, 1969; Weiner and Kukla, 1970; Hundal, 1971; Steers, 1973). However, Coffer and Appley (1964) caution that the theory McClelland and his co-workers have developed is neither compelled by, nor directly derived from, their data. There is, however, some consistency between the data and their theory.

Thus overall, despite the considerable exposure of content motivation theories outside academic circles, the area is highly controversial and research support for some theorists is limited. In recent years, according to Ribeaux and Poppleton (1978), in academic circles at least, interest has tended to shift more towards process theories which have generated much research. However, as the next section indicates, process theories are far from free of controversy.

## Cognitive Process Theories

Before process theories are outlined in detail it will be helpful, in looking at these theories, first to consider a little further what is meant by motivation.

It was noted at the start of the chapter that there does not seem to be any generally accepted definition of motivation, yet many authors give the impression that it is such a common word that spelling out what is meant by motivation would be tedious. Consequently, one is often not much wiser about what the concept involves after reading many works, and while many writers imply that it is some kind of notion that is concerned with goading us into action, it is something more than this.

Campbell and Pritchard (1976) reach a conclusion about what motivation involves, in a round-about fashion. They start by drawing attention to a formula that appears frequently in industrial and organisational psychology. This is, performance = f (ability x motivation). They note that performance can be regarded as almost any behaviour which is directed towards a task goal accomplishment. However, they do not see performance as synonymous with effort, ability or a combination of the two. The choice of work on the task, the understanding of what is to be done, the choice to persist, and the environmental constraints all play an important role. From this they conclude that the most meaningful way to view motivation is as a label for the determinants of three choices; to initiate effort on a certain task, to expend a certain amount of effort and to persist in expending effort over a period of time.

Cognitive process theories attempt to provide a generalised explanation of the processes that lead to these different choices between alternative courses of action, varying degrees of effort expenditure, and persistence over time. They are cognitive in the sense that they are concerned with how incoming sensory stimulation is transformed, reduced, elaborated and used, (Weiner, 1972). The approach of cogni-

tive theory in general is to postulate intervening cognitions between the incoming stimulation and the formal response. Campbell notes that most of the current cognitive theories owe their immediate ancestry to Tolman (1932) and Lewin (1938). Both held that individuals have cognitive expectancies concerning the outcomes that are likely to occur as a result of what they do, and they have preferences among outcomes. The subsequent growth of cognitive theory, according to Weiner, was mainly due to the inability of 'drive' theoretical perspectives to explain many behaviours. Different cognitive approaches developed, including those, like Festinger (1957), exploring cognitive consistency. However, the theory that came to dominate the motivational area in organisational psychology, and from which many models have been derived, was the process model of Vroom (1964). Consequently, it is this that will be considered first.

## Expectancy Theory

### Vroom's Model

Campbell notes that the Vroom model attempts to predict choices among tasks, or choices among effort levels within tasks, and contains three basic constructs; valence, instrumentality and expectancy. Valence refers to the perceived positive or negative value ascribed by the individual to the possible outcomes of action on the job. In the case of the effort model, Campbell notes, there are really two kinds of outcome. The first is simply the level of performance achieved. Different levels can take on different valences. The second type are those outcomes which might be contingent on performance, such as pay, performance, peer acceptance and working irregular hours. These outcomes are also ascribed a valence.

Instrumentality refers to the contingency perceived by the individual that one outcome has for another outcome. Campbell gives as an example, the high performance by an hourly paid carpenter on a construction job which will probably not result in a pay rise. Thus, in this case, the instrumentality of high performance for pay is low.

Valence and instrumentality combine to determine the valence of a given performance level.

Expectancy is the belief that behaviour will result in attaining outcomes. In other words, it refers to the perceived relationship between a given degree of effort expenditure and a given level of performance.

From the above, Vroom postulates that the force on a person to choose to expend a given level of effort is a function of these three variables and is determined by the sum of the products of expectancy and valence. Vroom's theory is stated in terms of expectations and perceptions of future consequences. The individual's previous reinforcement history plays no role. Neither, according to Campbell, is

the concept of 'need' basic to the theory. What the model says we need to know are: the value an individual anticipates for each outcome in an exhaustive list of outcomes; the degree to which each outcome is perceived as being contingent on various levels of performance, and the perceived probability that the individual can attain each of those levels of performance.

Since Vroom's original formulation, there have been a number of elaborations and modifications to it by various theorists. Three of the most important, by Graen (1969), by Porter and Lawler (1967, 1968), and by Campbell and Pritchard (1976), will be considered here.

## Graen's Model

The first major difference in the model of Graen (1969) to that of Vroom is in the consideration Graen gives to the full spectrum of job behaviours in a system of multiple employment roles, rather than just explaining effort or choice as they are directed towards greater performance on some specific task. Central to his model are the roles of effective versus standard performer. An important point, according to Campbell, is that for any particular role there are a set of explicit or implicit standards which indicate whether the individual has or has not met the role expectations.

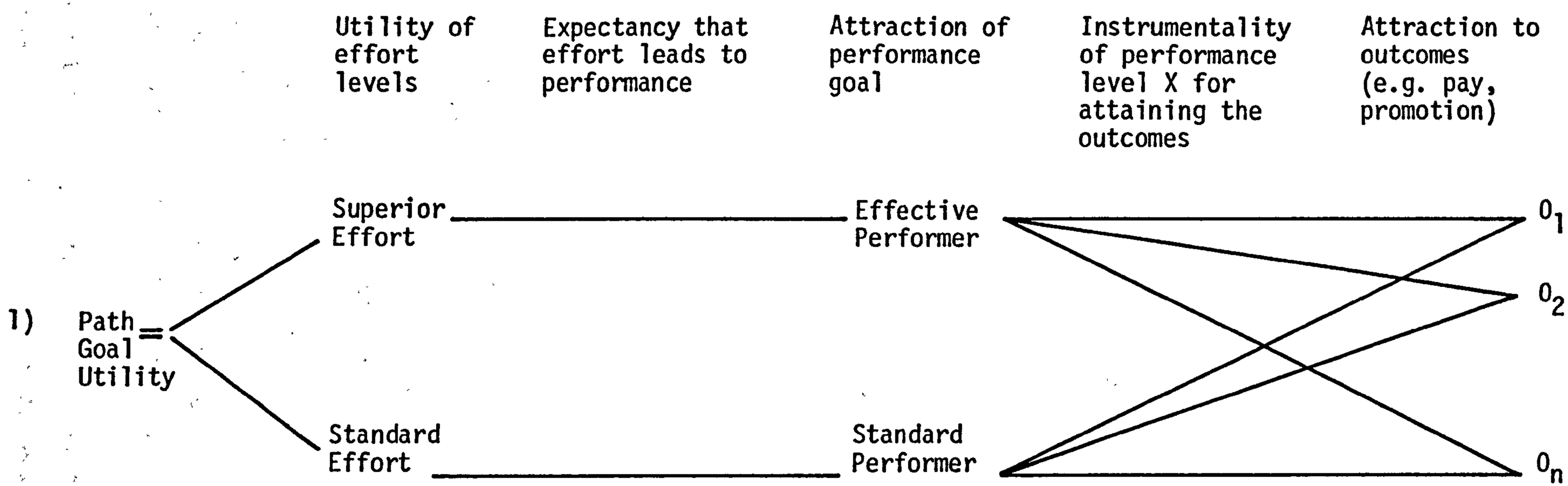
His second major modification is to consider all the possible outcomes of meeting or not meeting the standards for specific work roles, and break them into three major classes, but with a prime distinction between the internal (personal) goals of performance and the external (organisational) goals. This distinction has also been specified by Campbell et al (1970) and roughly speaking, according to Ribeaux and Poppleton, is equivalent to a distinction between pleasing others and pleasing oneself in task performance. Clearly, the two can coincide, but to the extent they do not, they can be expected to produce different kinds of performance.

Graen's three classes, then, consist first of a class of intrinsic or internally generated consequences that individuals grant or do not grant to themselves as a result of meeting the standards for a particular role. Externally mediated outcomes are in turn broken down into the second and third sub-categories. According to Campbell, one has to do with pressures to comply with the role expectations that emanate from some person in power (for instance, a supervisor); the second, although not explicitly stated, has to do with role outcomes that are specified by the organisation or the culture as being attached to that role.

Graen (1969) combines these classes of outcomes in a multiplicative way with the instrumentality of a particular role for achieving them, to yield the overall attraction of a particular role for the individual. Campbell produces a simplified schematic representation of Graen's model as shown in Figure 2.1. Basically, the model is attempting to predict the probability of superior effort expenditure. As the bottom of the diagram indicates, the probability of superior effort is equal to path goal utility plus external pressures and internal pressures towards superior effort. The first component, path goal utility, is similar to 'force' in the Vroom model. It is composed of what Graen terms goal attraction and path efficacy. Goal attraction is similar to Vroom's valence of performance. It is the sum of the products of the valence of outcomes multiplied by the instrumentality of a given performance level for attaining these outcomes. The other component of path goal utility, is path efficacy which is the perceived degree of relationship between a given effort level and attaining a given performance level, similar to Vroom's expectancy.

Path goal utility combines additatively with external pressures and internal pressures to produce the overall probability of superior effort. However, while this is the basic idea of the Graen model, the actual operationalisation of the model is more complex. According to Campbell, much of the complexity of the Graen, as well as the Vroom model, stems from using discreet effort levels, such as high versus low, and superior versus standard. Both models deal with the antici-

## GRAEN'S EXPECTANCY MODEL




2) External Pressures Toward Superior Effort = Perceptions of effort levels other persons expect him to exert multiplied by the percieved amount of pressure those persons would apply to influence his compliance

3) Internal Pressures Toward Superior Effort = Attractions to various intrinsic consequences of superior effort multiplied by the expectancy that superior effort will lead to these consequences

Probability of Superior Effort = (1) + (2) + (3)

Figure 2.1

Source: Campbell J.P., Pritchard R.D., (1976, page 77)

pated value of each of the effort levels to the individual. But it is difficult to know how many effort levels are needed. While Graen talks about two, Vroom does not specify a number, and the use of discreet effort levels makes operationalising the models difficult.

## Porter and Lawler's Model

The model proposed by Porter and Lawler attempts to avoid the problem of dealing with discreet effort levels and differs somewhat from the Vroom and Graen models. Figure 2.2 is a diagram of Porter and Lawler's 1967 model. On the left is the basic valence, instrumentality, expectancy (VIE) model, with the difference that perceived instrumentality rather than expectancy is included; on the right, moderating the influence of effort in determining performance, are the notions of ability and role perception. The dependent variable to be explained, according to Campbell, is individual effort as it is directed towards performance. Porter and Lawler acknowledge that performance has a number of other determinants besides effort, in their case, ability and role perception.

Ability is defined as the individual's currently developed power to perform, and refers to such characteristics as intelligence, manual skills and personality traits. Role perception refers to the kind of activities and behaviours the individual feels he should engage in to perform his job successfully, and determines the direction in which effort is applied. Role perceptions, like effort, are a particular type of attitude and both are crucial antecedent attitudes for effective performance, or else the effort might be misdirected, involving perhaps energetic but organisationally ineffective performance. Role perception has similarities with Graen's concept of role expectations of persons in power and the multiplicity of roles involved at work. However, as noted, he concentrates on the roles of the standard performer and the effective performer, unlike Porter and Lawler.

On the left of the model in Figure 2.2 are the main determinants of effort. The first is value of rewards, which is similar to the

PORTER AND LAWLER'S MODEL

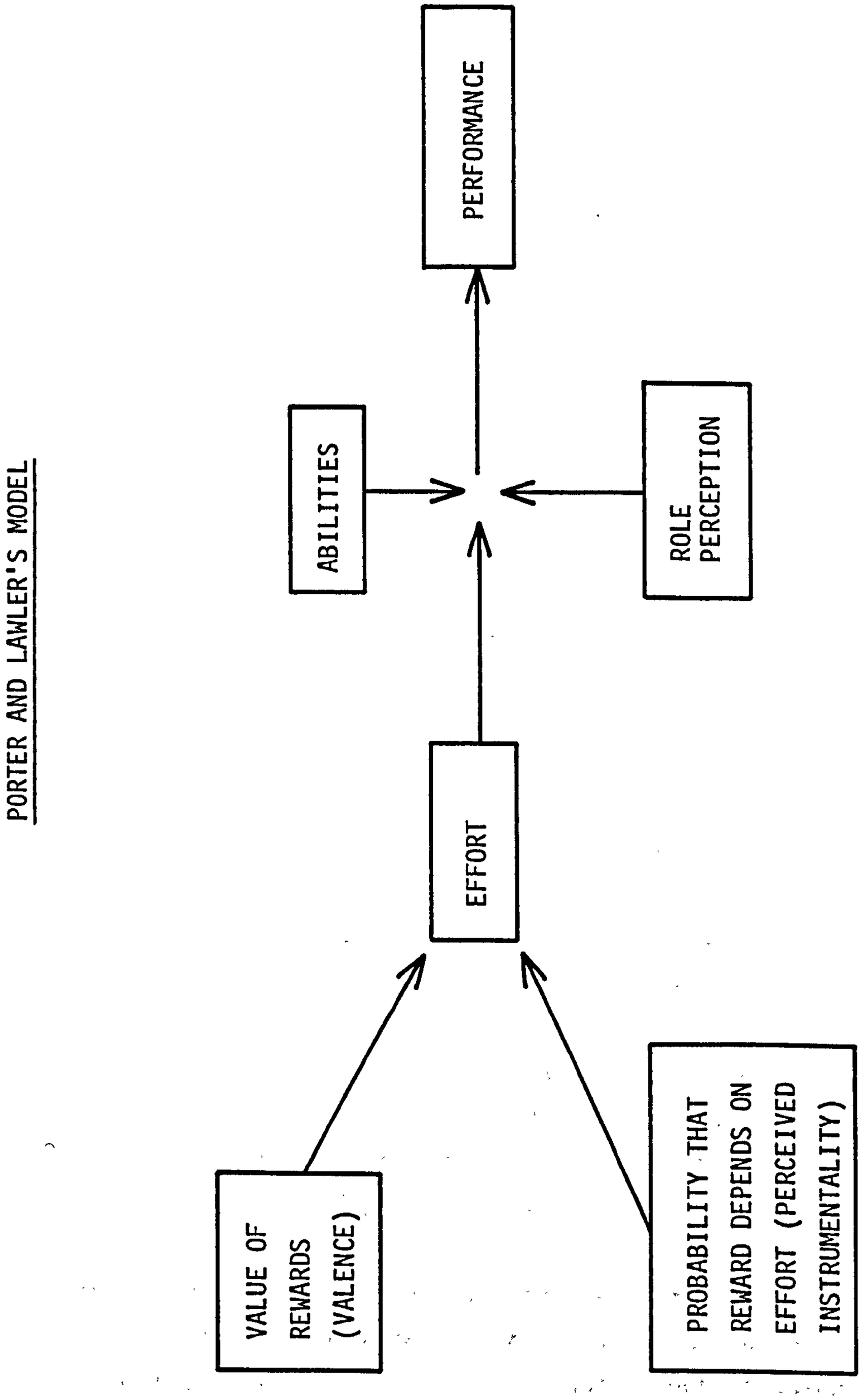



Figure 2.2

corresponding concept in the other models in that it refers to the perceived attractiveness of possible extrinsic and intrinsic outcomes to the individual. The second major determinant, the probability that reward depends on effort, is the perceived contingency between effort expenditure and obtaining certain specified rewards. This overall relationship is composed of two component relationships. One has to do with the perceived contingency between effort and performance. The second component is the perceived contingency between performance and obtaining rewards, or as Porter and Lawler state it, the probability that reward depends on performance.

The amount of effort an individual will expend in performing is a function of the perceived value of rewards and perceived contingency between expending effort and obtaining rewards, which in turn is a function of the two components described above. As a result of performing, an individual receives certain rewards, either from the organisation or from himself, a distinction between extrinsic and intrinsic rewards.

A modification of this model which adds a dynamic and on-going element to it, is the introduction of two feedback loops which modify the basic components as a result of the individual's experience over time. Porter and Lawler (1968) show a feedback loop first from the 'Performance' box to the 'Probability that reward depends on effort' box in Figure 2.2. They suggest that this perceived probability will alter over time as a consequence of the actual reward practices that are followed by the organisation (extrinsic) and the individual (intrinsic). If these are satisfactory the probability is maintained at a high level; if not, the probability will be reduced with a consequent deterioration of performance.

The second feedback loop goes from the 'Performance' box to the 'Value of rewards' box. This also involves the effect of any rewards consequent upon performance. It concerns the extent to which the individual is satisfied with the rewards. According to Campbell, felt satisfaction results from the degree to which an individual perceives

the rewards he receives to be equitable. There is some similarity here with the notions behind equity theory (discussed later), as Campbell notes that equity or inequity is derived by comparing the level of rewards actually received with the level an individual feels he should receive for a particular level of performance, or for occupying a particular organisational role. The implication from this, according to Campbell, is that this will affect the perceived value of rewards in the future. However, how it does this is not clear, for receipt of certain kinds of rewards, (for instance, food) reduces their value. One is not hungry after a meal. Certain others, (for instance, achievement) do not seem to show this homeostatic tendency and the attainment of these seems to serve as a spur to greater achievement, (that is, to increase their value). However, as Campbell notes, at least Porter and Lawler acknowledge that there may be a problem between a homeostatic view of motivation and a growth model, which is a dynamic element that human motivation theorists often do not consider.

This basic model of Porter and Lawler's has been extended by Lawler (1971, 1973). Basically this comprises of a more formal specification of the parameters that determine an individual's expectancy that effort will lead to task accomplishment, and the inclusion of a third feedback loop.

The subjective probability that effort will lead to goal accomplishment is seen as being determined by the task information specific to the particular stimulus situation under consideration, the individual's fund of information concerning how he or she has done on similar tasks in the past, and the individual's self esteem, or a relatively permanent characteristic of the individual's personality that reflects the generalised perception of competence across almost all task situations. Lawler does not specify how the components might combine to determine the expectancy judgement or whether 'sub' expectancies defined by these various components might relate differentially to behaviour.

The additional feedback loop concerns the effect of task success or failure on the individual's general self-esteem and on the specific expectancies which become characteristic of specific kinds of tasks, although Lawler does not speculate further on what some of the dynamics of this feedback loop might be.

## Campbell and Pritchard's Model

Campbell and Pritchard (1976) produce a version of VIE theory which combines the contributions of Vroom, Graen, and Porter and Lawler. The common elements of the model are summarised in Figure 2.3. The dependent variable the authors are trying to explain is not performance, but the choice which is made among alternatives, the amount of effort which is directed toward some goal, and the change in effort or choice. They see choice directed toward alternative tasks, and effort directed towards performance levels within tasks, and see a task goal as a specific performance level for a specific task. Their model differs from Porter and Lawler's in that they talk only of effort directed at total performance, and differs from Vroom in that his force to act is directed at choices among tasks or choices among specific performance levels.

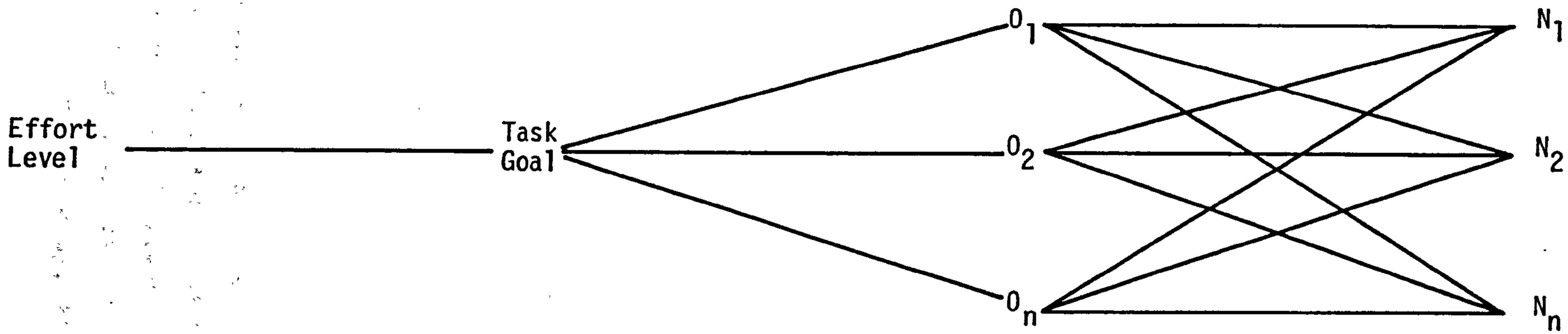
Campbell and Pritchard see a number of important parameters in considering tasks, namely, task content, task difficulty, goal clarity and locus of goal definition, (that is, whether an external agency has defined the task and the individual has accepted this, or whether the individual has initiated it himself or reinterpreted an externally set goal).

In the light of Graen's discussion of internal versus external pressure and Porter and Lawler's intrinsic versus extrinsic rewards, Campbell produces two major classes of goal contingent outcomes; external outcomes - provided by the organisation or other people; internal outcomes - those mediated within the individual and which he or she grants to himself or herself. This distinction is meant to differentiate between those outcomes which are under the direct control of the individual and those that are not.

Campbell and Pritchard see, as with all expectancy models, valence of outcomes as a basic determinant of action. Additionally, following Vroom and Graen, they posit a valence for performance or task accomplishment which is in turn a function of the valence of the goal

## CAMPBELL AND PRITCHARD'S MODEL

| | | | | | | |
|---|---|---|---|---|---|---|
| Force to expend specific level of effort | Expectancy that specific level of effort will/will not accomplish task | Valence of task goal accomplish-ment/failure | Instrumentality of task accomplishment/ failure for job outcomes | Valence of job outcomes | Instrumentality of job outcomes for need satisfaction | Valence of 'basic needs' |




The schema portrays only one level of effort and one level of success on one task goal. A similar set of relationships exist for alternative levels of effort and alternative tasks or alternative levels of success.

Figure 2.3

Source: Campbell J.P., Pritchard R.D., (1976, page 80)

contingent outcomes and the instrumentality of performance, (that is, task success or failure) for obtaining these outcomes. The remaining variable is an individual's expectancy that the task in question can be accomplished. These variables interact to produce the level of effort. Unfortunately, Campbell and Pritchard are unable to specify how the relevant variables interact, and despite a great deal of research and the addition of a number of modifications to the model by the authors, it seems likely that a large number of further additions will turn out to be necessary. It is ironic that Campbell and Pritchard make a plea for further research into only one or two components of VIE theory on the one hand, while producing a highly elaborate model of their own, on the other.

## Expectancy Theory: Empirical Results

In general, research into VIE models has involved investigation of both the relationship between pairs of individual components, and the whole model. Research into each of the components has had a number of problems. If we look first at valence, as Ribeaux and Poppleton note, research into the effects of valence on effort and performance has been bedevilled by the fact that measurement of valence is extremely difficult. The reason for this is related to the difficulty, perhaps impossibility, of devising a measure for comparing the attractiveness of say, increased pay with a reduction in working hours, or a compliment from a supervisor with the personal satisfaction of a job well done. Even if they can be compared with one another in terms of preference, the problem of finding a single scale for measuring all possible incentives in terms of attractiveness or valence has so far not been solved.

The results of the research, as most reviews of expectancy theory agree, have not yielded many definite conclusions, although there are some positive studies. Pritchard and Saunders (1973) found a correlation of 0.54 between the ratings of the valence of job outcome of 148 employees in an American government agency, and the ratings of the

effort they put into their work. However, on the negative side is the finding of a correlation of only 0.16 between valence of outcomes and performance found by Hackman and Porter (1968) in a study of telephone operators, and the findings of Jorgenson, Dunnette and Pritchard (1973) of a correlation of only 0.05 between rated performance of pay and job performance in a simulated work situation.

In general, the research into the relationship between instrumentality and performance is more conclusive. Georgopoulus, Mahoney and Jones (1957) found that subjects who experienced high instrumentalities via the incentive system, tended to produce more than those reporting low instrumentality. Lawler and Porter (1967) found low positive relationships between the perceptions of managers of the instrumentality of their performance and ratings of their effort, and performance by supervisors, peers and themselves.

A number of other field studies (e.g. Porter and Lawler, 1968; Wofford, 1971) and experimental studies (Graen, 1969; Jorgenson, Dunnette and Pritchard, 1973; Pritchard and DeLeo, 1973) have tended to support the general findings of a relationship between instrumentality and performance. However, on the other hand, Dachler and Mobley (1973) found very low correlations indeed.

With regard to expectancy, the experimental study by Arvey (1972) generally supported the prediction that the greater the perceived relationship between effort and performance, (the expectancy that effort will lead to successful performance), the better the performance on a laboratory task was likely to be. However, the chief field study testing the hypothesis (Pritchard and Saunders, 1972) found a virtually non-existent relationship.

On the other hand, measure of perceived instrumentality, (Lawler and Porter, 1967; Porter and Lawler, 1968; Hackman and Porter, 1968) which is a combined measure of effort-performance expectancy and performance-outcome instrumentality, do correlate with measures of performance. However, in view of the nature of this measure, it is

impossible to assess the contribution of effort-performance expectancy.

Thus, correlations betwen the individual basic components of the model and work performance have, in general, been unspectacular. Much more convincing results have not been yielded either, by studies that have tested the full model. Ribeaux and Poppleton point to Dachler and Mobley's (1973) study in which the three VIE components were multiplied together to obtain a composite picture which correlated 0.3 with work performance for semi-skilled workers at two manufacturing sites. Lawler and Suttle (1973) in a study of 69 retail managers using a combined VIE model, obtained correlations of 0.39 with self ratings of effort, 0.27 with superior's ratings of effort, and 0.15 with peer ratings of effort. This is in line with the Dachler and Mobley study, as are a number of less sophisticated studies, (e.g. Mitchell and Albright, 1972; Mitchell and Nebeker, 1973; Pritchard and Saunders, 1973).

Ribeaux and Poppleton conclude that both the full VIE model and its components are only partially successful in relating the various aspects of motivation to performance, while Campbell notes that the available data does not portray the VIE model as a very powerful tool for explaining behaviour. Nevertheless, both agree that the framework is likely to continue to be the most powerful generator of research in the field for some time, although empirically there are problems.

The increasing complexity of the models would seem to indicate that there is no way of avoiding the complexity of human motivation. Both writers, however, point (Ribeaux) and plea (Campbell) for a deeper study of smaller areas of motivation rather than trying to look at the broader picture. While such an approach may be of value, however, it may also be very limited. It has similarities with telling someone who cannot make out the forms of a French Impressionist painting to move closer to it. Certainly, the fine brush strokes would then be better identified, but the painting itself will only be fully understood by stepping back and looking at the full canvass. Human motivation, subject to so many wide influences, is possibly also like this.

## Equity Theory

In addition to the models considered above there are a number of other models which Campbell treats as sub-theories. One of these is equity theory which is also a cognitive theory concerned with individual and social comparison processes. Most of the literature on equity theory relates to financial reward, but it can be broadened to encompass a variety of job behaviours and outcomes.

Basically, the theory deals with exchange relationships and the fairness or equity of these exchange relationships. Of the models dealing with equity concepts (Homans, 1961; Jaques, 1961; Patchen, 1961) the formulation presented by Adams (1963, 1965) is the most explicit and has stimulated the greatest amount of research. Adams' basic model has been presented diagrammatically as in Figure 2.4.

### Adams' equity model

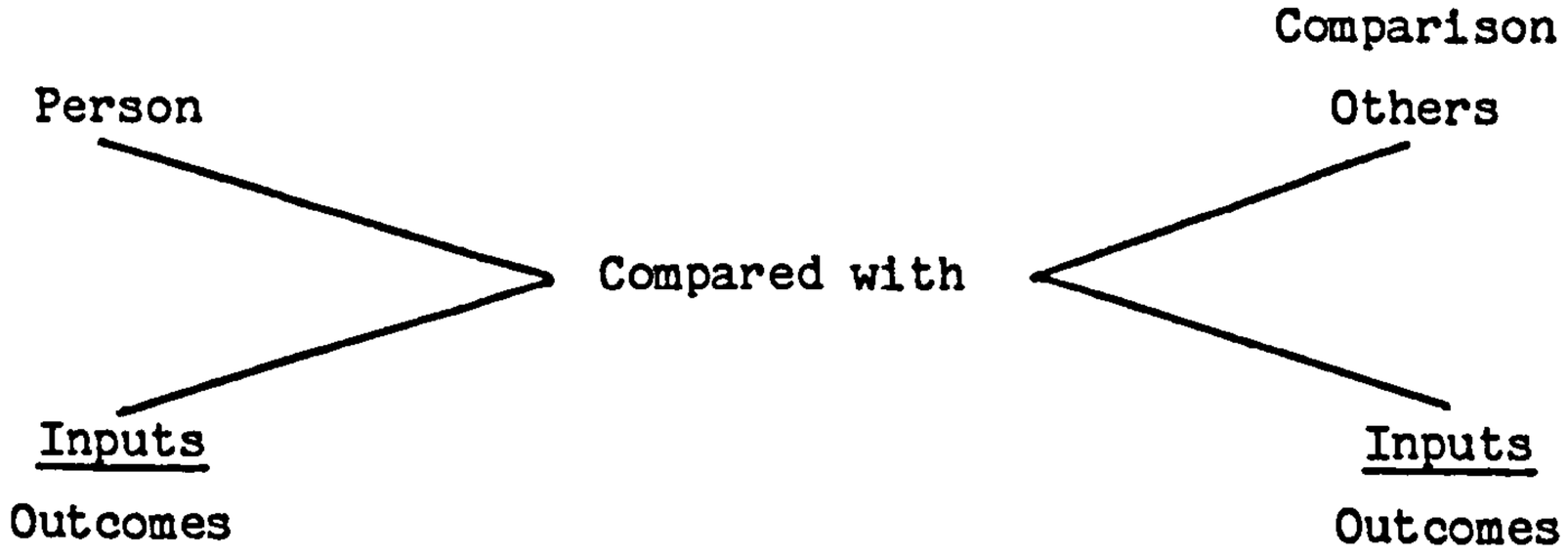



Figure 2.4

Perceived equity or inequity results when a person compares his or her input/outcome ratio, either consciously or unconsciously, to what is perceived to be the ratio of another person or persons. This comparison object need not necessarily be any one individual; it may be an abstraction based on a broad class of others seen to be relevant for comparison purposes. Inputs include anything a person perceives as an investment in the job and worthy of some return. Outcomes are returns from the situation. The elements in the input/outcome ratios are weighted by their importance.

Equity results if the two ratios are seen to be equal. This is regardless of the absolute level of inputs and outcomes for either party. For example, equity is said to exist in a situation where an individual's inputs do not match his outcomes, but his comparison other is seen to be in an identical situation. Perceived inequity results when an individual's ratio differs from that of his comparison other. Adams postulates that the consequence of inequity is an induced tension with motivating properties, impelling the individual to reduce or eliminate his tension. Additionally, the magnitude of the tension should be proportional to the magnitude of the inequity. Thus the strength of the behavioural tendency (effort, choice etc) toward reducing inequity is determined by the magnitude of the perceived difference between the two ratios.

Adams lists several things an individual can do to reduce or avoid inequity. One or both of the two ratios can be changed in a number of ways; a person may change his perceptions of inputs or outcomes, leave the situation, attempt to change the inputs and outcomes of the comparison person, change his own inputs and outcomes, or change the comparison person. The method chosen will depend on its worth to the individual, (for instance, he is more likely to change a perception of a comparison person's ratio, rather than his own).

The major hypotheses of equity theory have been those directed at quantity and quality of performance as a function of over and under payment within both incentive and hourly pay systems. Campbell notes that predictions of equity theory concerning the effects of underpayment have consistently been supported. From studies by Clark (1958), Homans (1953), Lawler and O'Gara (1967), Andrews (1967), and Pritchard, Dunnette and Jorgenson (1972), Campbell concludes that when discrepancies between input/outcome ratios exist, inequity is felt and thus inequity leads to behavioural attempts to balanace input/outcome ratios. In the case of hourly payment, this inequity reduction takes the form of decreased productivity, and under piece rate payment, increases in productivity are accompanied by decreases in quality.

Campbell maintains that at first glance, the research on the effects of overpayment on productivity seem to support equity predictions. He cites the studies of Arrowood (1961), Adams and Rosenbaum (1962), Adams (1963), Adams and Jacobson (1964), Andrews (1967), Friedman and Goodman (1967), Lawler, Koplin, Young and Fadem (1968), Lawler (1968), Moore (1968), Goodman and Friedman (1968, 1969), Weiner (1970), Wood and Lawler (1970) and Pritchard et al (1972), which have generally supported the prediction that hourly overpayment leads to decreases in quantity of production and increases in quality. However, three problems have plagued efforts to study overpayment. First, as Lawler (1968), and Pritchard (1969) have pointed out, it has been difficult to manipulate perceived inputs and outcomes without at the same time threatening the individual's self esteem. The second problem, according to Campbell, is that some studies have induced a 'set' towards increased quality. Subjects made to feel overpaid by the usual method of attacking the subject's qualifications, are told to pay 'close attention', which may induce subjects to concentrate on doing high quality work at the expense of quantity. A third problem noted by Lawler (1968a), is that subjects made to feel overpaid due to their poor qualifications may also feel they are in danger of being fired and thus seek to do especially good work to assure their job security.

Campbell sees the most serious of the three as the self esteem problem, and several studies have dealt with it directly. Andrews and Valenzi (1970), Evans and Molinari (1970) and Weiner (1970) offer data supporting the contaminating effects of threats to qualifications in overpayment research. The last of these studies also demonstrated that the effect due to threats to self esteem was greater when the task seemed to involve highly valued abilities than when it was portrayed as not involving skills that were central to the individual's self concept.

Campbell notes that if one considers only those studies which do not manipulate overpayment by threats to qualifications, a somewhat different picture emerges. The data produced by Andrews (1967), Lawler

(1968), Weiner (1970), and Pritchard, Dunnette and Jorgenson (1972), suggest that overpayment has a small effect on the predicted direction, but it frequently falls short of statistical significance. A possible reason why there is a stronger effect on the individual to alter his behaviour when inputs are perceived as too low, rather than too great, at least with respect to pay, considered by Campbell, is that people are less likely to feel inequity when an organisation is losing out (in the case of overpayment) rather than the individual, (in the case of underpayment). However, one important problem with the theory is that the arousal of inequity can only be inferred from the situation and/or experimental manipulations. It cannot be measured directly. Therefore, we are faced with the problems of knowing whether equity has actually been aroused, and if it has, knowing all the ways it can be reduced so that changes in behaviour can be observed and monitored. Moreover, a further problem concerns a person's choice of comparison other, especially under changing circumstances. The theory as it stands makes no prediction about this choice, although a number of writers, (including for instance, Staw, 1977) have acknowledged that reference points of this nature are important and should be explored further. Indeed, reference points in the theory are limited to individual references, when, in some cases, such as the comparison processes of priests, nuns and medical doctors, a more general societal comparison may be utilised.

Equity theory has some relationship with the theory of cognitive dissonance (for instance, outlined by Festinger, 1957). An implication of the notion of comparison others is that if we want to change people's attitudes to work, then we might do this more easily by giving them information about potential comparison others, rather than trying to change directly their attitudes concerning their own inputs and outputs. This, of course, would require some knowledge about their comparison others. It also relates to the idea that consistency with self-image is particularly important (i.e. that people react in a manner that is consistent with their cognitions about themselves). The method of inequity reduction chosen, it is postulated, will be that which minimises the psychological cost; that is, cognitions which

are more clearly related to the self image and which are particularly related to the more important aspects of the self image (i.e. self worth), will be the most difficult to change, and that changing them will involve the greatest cost to the individual in that he will experience great uneasiness or anxiety when his ideas about his identity or self worth are threatened. This theory, of course, presupposes a motive to strive towards a consistent view of the world and in particular of the self. Thus, a person with a poor view of his worth or abilities should put himself into situations likely to produce failure (i.e. by choosing impossible tasks) or not try very hard so that he fails and hence maintains a consistent view of himself. Conversely, a person with a high valuation of his worth and abilities will be most motivated to succeed in various tasks to enable this image to be preserved.

While empirical evidence has generally supported Adams' theory, as noted, there are limitations to it, and he has tried to improve the theory (Adams 1965) by making several propositions about the choice of method of inequity reduction. He argues that a person will maximise positively valent outcomes and the valence of outcomes; he will minimise increasing inputs which require effort and which are difficult to change; he will resist real and cognitive changes in inputs that are central to his self concept and self esteem; he will be more resistent to changing cognitions about his own outcomes and inputs than about another's outcomes and inputs; and leaving the field (escaping from the situation) will be resorted to only when the magnitude of the inequity is high and other means of reducing it are unavailable.

Finally, Campbell et al (1976) have tried to compare equity theory and expectancy theory. They maintain that the two theories are not in conflict and that equity theory can be subsumed under the general umbrella of the VIE model.

## Attribution Theory

Attribution theory is included here because it has been noted by some (e.g. Campbell and Pritchard 1976, and Ribeaux and Poppleton 1978) that few motivational theories really say much about what happens to performance over time, and attribution theory may go some way towards accounting for this.

Attribution theory, which is a cognitive approach rather than a theory of individual motivation is, according to Kelly (1967), part of an explanation of how a typical observer infers a person's motivations from his actions. Ribeaux and Poppleton see it as a theory about the way we attribute characteristics, particlarly causal and dispositional ones, to people and events including ourselves. Weiner (1972) notes that attribution theory concerns the processes by which an individual interprets events as being caused by a particular part of a relatively stable environment, and he sees attribution theory concepts as most relevant to the relationship between person perception and interpersonal behaviour.

Kelly (1967) notes that two general kinds of attributional processes have been brought under consideration. The first can be attributed to Heider (1958), and Jones and Davis (1965) and emphasises the environmental factors or stimulus conditions that affect attribution. The second is most closely identified with Rotter (1966), and focusses on an individual differences variable, labelled, 'internal versus external control'; that is, there seem to be stable individual differences in the degree to which people feel they control or are controlled by their environment. This pheneomenon has also been studied by such as Cohen et al (1976) in a laboratory type situation.

Jones and Davis' model, designed for the processing aspects (translation and inference) of person perception, is outlined below. The model attempts to explain how a perceiver (P) attributes dispositional characteristics to another person. P Starts by observing a

Jones and Davis' attribution model

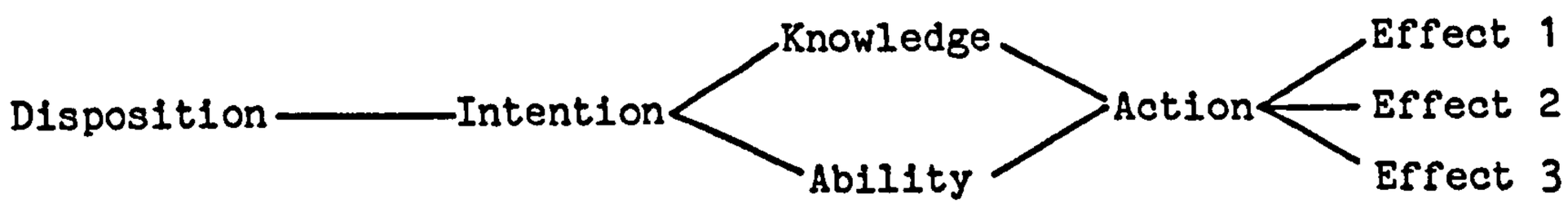



Figure 2.5

particular action on the part of O. At this stage a whole inference process comes into operation based on a number of questions that P asks himself about the action. Reading from right to left in Figure 2.5, P asks himself first whether O has the knowledge and ability to carry out the action of taking into account all the implications of the action. If he has this knowledge and ability, P holds O responsible for his action, and on the basis of this P will attribute a different kind of disposition to a person who is responsible for his action, to one who is not. A further question remains to be answered and this is whether his action is intentional or accidental. Clearly, if it is the former, we are more likely to hold him responsible and consequently attribute to him a different kind of disposition.

Heider's (1958) position stems from the notion that in much psychology, the result of an action is felt to depend on two sets of conditions, namely, factors within the person and factors within the environment. Heider believes that the internal and external factors combine additively to determine behaviour. Weiner points out that this distinction is common to many, if not all motivational theories, but is particularly emphasised in attribution theory. A quality that differentiates external from internal determinants of behaviour is the differential allocation of causality for actions. In attribution theory only sources of action attributed to the person (internal) can be labelled intentional. Moreover, differential allocation of causality between the two factors also results in different affective experiences, future expectations and behaviours. For example, if suc-

cess at a test is perceived as due to personal factors, such as ability, then the person might, for instance, expect to do well in other tests, feel more pride, enroll in more difficult courses or study less hard.

Whether an individual attributes success or failure to either ability or effort, is important to motivation, as it affects instrumentality. The individual can affect his internal outcomes by attributing his performance to skill, effort or external factors. Campbell points out that in the case of goal achievement, attribution via effort may not lead to as great a feeling of accomplishment as an attribution via ability brought to bear on a task. If failure is experienced it might be much less negatively rewarding if the individual can attribute it to environmental factors or the fact that he or she just did not feel like trying. According to Campbell, considerable data supports this kind of defensive attribution, such as that of Weiner and Kukla (1970).

Weiner and Kukla have also produced data that suggest that self generated attributions and internally mediated negative outcomes have a much more severe effect than externally mediated negative outcomes. Thus, while punishment administerd by an independent party may have little effect on behaviour, it might be quite potent when self administered.

Some authors have considered that there may be some stability in individual differences in these processes. For example, Rotter (1966) sugests that individuals vary in the degree to which they believe they control events (internal control) or events control them (external control) and he has developed a paper and pencil inventory to assess the characteristic. Within the VIE model, Campbell notes that such a variable has important implications for the expectancy component. Someone scoring towards the external end of the continuum on the Rotter scale may seldom see a connection either between ability or effort, and task accomplishment. It is possible that such attributions are associated with being at the very bottom of the socio-

economic ladder and therefore have a very deleterious affect on both academic and employment behaviour. Conversely, someone scoring toward the internal control extreme may always interpret the attainment of outcomes as dependent on the individual's own behaviour. However, if the situation is such that nomatter what the individual does, rewards cannot be brought under self control, there would probably be long term behavioural effects. For example, self-esteem could steadily erode. However, as Weiner points out, there are problems of validity with Rotter's IE test. Indeed, the only reliable relationship (not even one between people high on personal control and the pursuit of more achievement related behaviour) is that between scores high on externality and high scores on anxiety; although Weiner does note that the scale has had success predicting behaviours that generally involve attempts to better one's life through action on the environment.

Additionally, Weiner is critical of the Rotter type distinction between internal and external control because 'it is confounded with the stability dimension'. Weiner considers that there are, in fact, four major perceived causal factors of success and failure. These are, effort, ability, luck and task difficulty. Weiner admits that there are stable and unstable aspects of attribution, but these can be related to these causal factors. A four-fold table showing this can be produced as in Figure 2.6.

Weiner's attribution table

| | stable | unstable |
|---|---|---|
| internal | ability | effort |
| external | task difficulty | luck |

Figure 2.6

Attribution in each of the four cells may have different antecedents and different behavioural consequences. For example, a number of

laboratory-type studies have been conducted by Weiner and others (e.g. Weiner, Heckhausen, Meyer and Cook, 1972) which suggest that attribution of causality to stable factors results in a much greater change in subsequent expectancy judgements, than attributing causality to unstable factors.

Campbell et al (1976) point out that such an analysis has several implications for any attempt to develop a more precise expectancy model of individual motivation in organisations. First, the cell an individual is in has implications for how the perceived value (valence) of accomplishing or not accomplishing a goal might change over subsequent periods. Previous research (e.g Osipow, 1972) suggests that, in general, people who experience success on a task tend to value future accomplishment of the task, more than people who experience failure. However, such a finding masks some important interactions. For example, data summarised by Weiner suggest that attributions of internal causes increases the subsequent variability in the valence assigned to task success and task failure. External attributions should decrease it. The change in the variance of valence should be further increased if only the stable causal elements are considered. Other things being equal, attribution of unstable factors should decrease the difference in the valences of success and failure. For example, high need achievers who experience success, but attribute it to their effort rather than their ability, may devalue such task accomplishment in the future.

The second major implication relates to how attributions affect future expectancies. One example is that task failure may influence future expectancies differently depending on whether failure is attributed to internal or external causes.

The question of intentionality has also been studied in depth by De Charms (1968) and his co-workers. Their contribution has been to identify an 'origin-pawn' dimension, which identifies the extent to which an individual is acting by his own intent (i.e. as an origin) or in response to external pressure beyond his control (i.e. as a pawn).

This differentiation is similar to Rotter's distinction between internal and external control. Weiner notes that feeling like an origin has strong effects on behaviour as compared to feeling like a pawn. However, unlike the authors considered earlier, De Charms sees the distinction between origin and pawn as continuous, not discrete. A person feels more like an origin under some circumstances and more like a pawn under others. De Charms notes that the personal aspect is more important motivationally than objective facts. If a person feels he is an origin, that is more important in predicting his behaviour than any objective indication of coercion. Conversely, if he considers himself to be a pawn, his behaviour will be strongly influenced despite any objective evidence that he is free. An origin has a strong feeling of personal causation, which is a concept for De Charms, that is a powerful motivational force, directing future behaviour.

De Charms associates the concept of origin with intrinsically motivated behaviour (own forces), freedom of movement, and the perception of situations as challenging. Conversely the notion of pawn is linked with extrinsically motivated behaviour (induced forces), restriction of movement, and the perception of situations as threatening. Thus origin-pawn, in fact, goes beyond locus of control. However, experimental results are inconclusive, and there is a need for De Charms to tie his ideas into a theoretical framework. Nevertheless, different feelings and attitudes are distinguishable under the two categories.

## Possible Alternative Framework

Can then, any useful conclusions be drawn from the above review of the literature which might give direction to the development of a possible framework? Most of the theoretical and empirical problems of the frameworks considered above have already been noted in the text and will not be dwelt on here, but they do seem to indicate that none of the frameworks has any compelling claim to be adopted completely. However, in attempting to select the best elements from those theories

outlined, in order to develop an alternative framework, there are again few aspects of these frameworks that pick themselves, in the sense of either having strong empirical support or having particularly notable explanatory qualities. Some seem to be better than others, but none are conceptual jewels, and the method of selection of elements for a possible model here, is based as much upon a vague intuitive feeling that such and such an element fits well into this particular framework, as it is on rigorous selection. As there is little conclusive empirical support around, it is, indeed, difficult to see how it could be otherwise.

A start will be made with some broad considerations. A basic assumption and definition, in line with the theories outlined in the chapter, is that motivation is a goal directed force that is the product of inner needs. Also, it would not seem unreasonable, in view of the particular bias of this thesis towards an expectancy framework, and in view of the fact there is no empirical or theoretical reasons to the contrary, to adopt as important determinants of behaviour the notions of valence and expectancy. Indeed, many theorists outside the VIE school, who would not call valence, 'valence', still see the attractiveness of outcomes as important determinants of behaviour. In addition to this, Campbell's distinction between choice directed towards alternative tasks (or more possibly, alternative jobs), and effort directed at performance levels within tasks, is useful. So is the distinction made by many writers, but highlighted here in Porter and Lawler's model, between effort and performance and the notion that effort is one of several determinants of performance. Moreover, their distinction between intrinsic and extrinsic rewards is also of value. Specifying what these might be, would, of course, mean going into the realms of content theory and there is no need to do that here, but the distinction between the two broad categories is important. Thus, from this the skeleton framework shown in Figure 2.7 can be produced.

Alternative framework

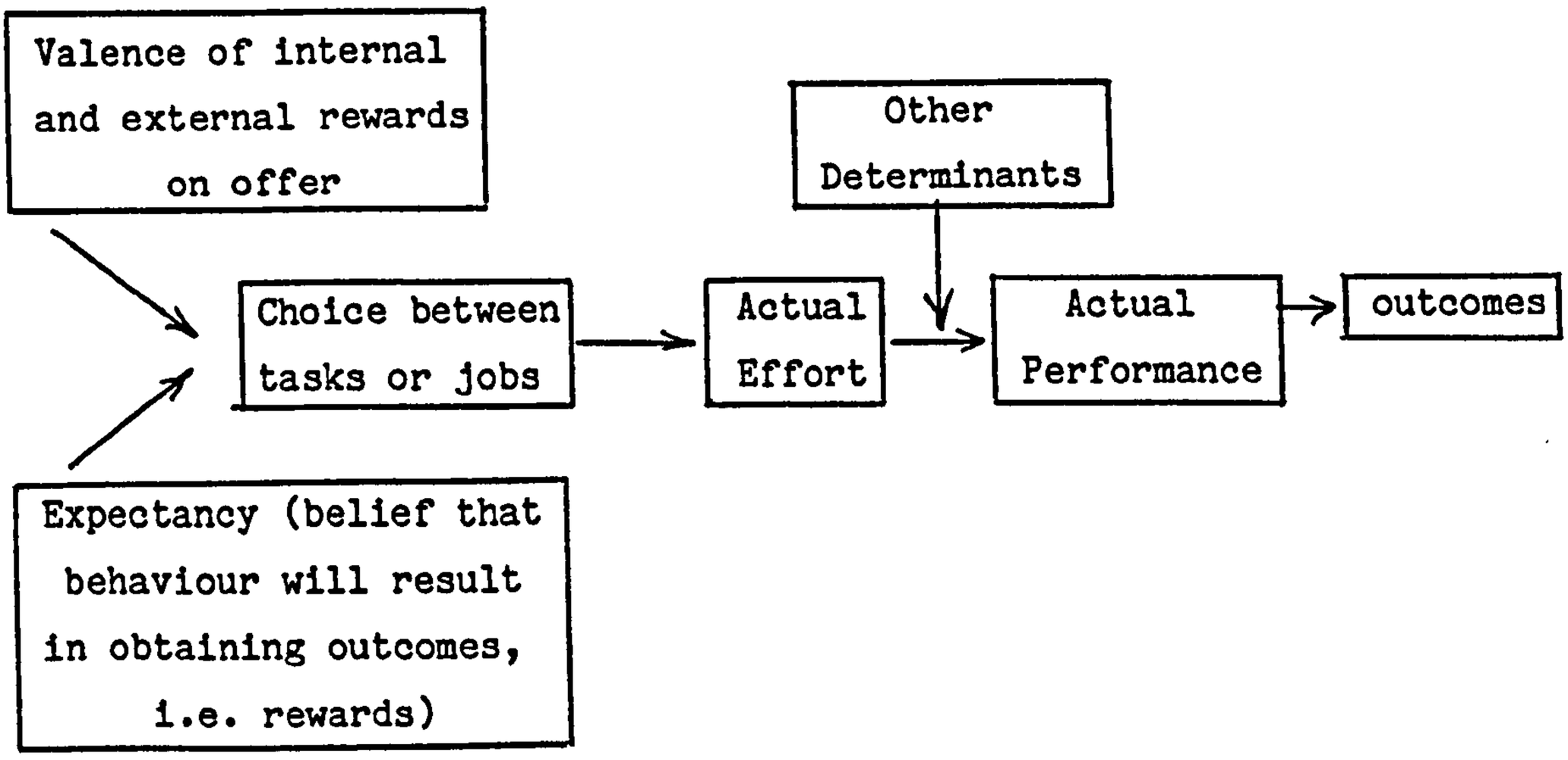



Figure 2.7

In addition, there are a number of other points that have been highlighted by the various authors considered above which can be usefully incorporated in the model. The first is the notion of feedback loops, initially identified by Porter and Lawler. These are important as future possible behaviours are likely to be affected by an individual's experience. Learning theorists would presumably argue that many activities in a sequence such as that outlined above will affect subsequent behaviours, but it is adequate to just highlight those behaviours which are most likely to have the biggest impact on subsequent behaviour. However, the feedback loops seen here as important do not necessarily agree with those of Porter and Lawler. Actual performance is not seen as greatly affecting, either valence of rewards, or Porter and Lawler's perceived instrumentality. For instance, an example unrelated to the workplace, can be taken from sport. An olympic gold medal may have a great deal of valence for an athlete. He may put forward a lot of effort in training, and at the games themselves, in order to obtain the attractive outcome, the gold medal. Failure to obtain a gold medal would seem unlikely to lead to the athlete then seeing the medal as an unattractive outcome. As one of the highest reards in the sport, the gold medal may well still have

valence, but what would seem more likely to be affected is the athlete's expectancy that by trying again he will ever attain the desired outcome. However, a feedback loop is seen between the actual outcomes and the expectancy that behaviour will result in obtaining outcomes, although, as with Porter and Lawler, it is suggested here that there will be an impact on self-esteem or self-image as a result of task success or failure. Indeed, this notion of the impact on self-image is an important addition by Porter and Lawler and fits in with the explanation underlying equity theory noted earlier.

The idea of equity is also important and acknowledged by Porter and Lawler, but while it is related to their second feedback loop, it is seen here as more important to the first (from outcomes to expectancy) and gives us a fuller explanation as to why and under what circumstances a person may change his work behaviour, and what the results may be as a consequence of changes in outcome. The suggestion here in relation to equity, and as equity theory suggests, is that there is nothing inherent in outcomes such as pay, that identifies, for instance, that a rise is good or bad. The individual will use some referent point in order to evaluate the characteristics in question. This will apply equally to internal as well as external outcomes as the individual will use, in Goodman's (1973) terms, either, self, other or systems referents. The expectancy that a certain effort will result in outcomes will have an impact on the individual's comparison process. If he or she feels that the behaviour needed to acquire particular outcomes is much greater than others, he or she will, if equity theory is correct, at least feel tension, if not alter his or her behaviour. However, whether the individual does alter his or her behaviour and in what way will depend on one other important factor identified earlier. This is locus of control.

The concern here is not so much with actual performance, but actual effort or motivation to perform. Weiner's outline of the four factors that affect performance, and Porter and Lawler's inclusion of role perception as influencing performance are important, but not necessary to this model, except in the feedback effect they will have. The

basic idea here is that a person who experiences changes in outcomes and conducts a comparison process, will further be influenced by his feelings of whether he controls his environment or it controls him, before then deciding whether to continue to put forth effort, and at what level, or whether he decides to change tasks or redirects his behaviour towards other activities. This will be further elaborated on later, but a fuller framework can be derived from the above and is set out in Figure 2.8.

This, on the surface, would seem to be a reasonably credible framework. However, it is incomplete and this stems basically from, on the one hand, the lack of a full consideration of what, many expectancy theorists admit is one of the important determinants of behaviour, the perceived value of outcomes, and on the other hand, its narrow focus in concentrating on the individual without any detailed consideration of broader environmental factors. Ever since the Hawthorne studies (Roethlisberger and Dickson, 1939), there has been acknowledgement that work motivation cannot be explained fully in terms of a completely individual perspective. As it stands, the framework, as with many psychological models, is appropriate for a laboratory setting, but really fails to acknowledge the many important influences of the organisational world.

An attempt will be made to rectify this in the next section. This looks at the Work Orientation approach and tries to identify aspects that will broaden the framework's perspective to include factors from outside the individual's immediate work tasks. The Work Orientation approach does not contain the same reasonably clear analysis of motivation as the theories discussed so far, but the approach, nevertheless, is important to motivational understanding.

INITIAL FRAMEWORK

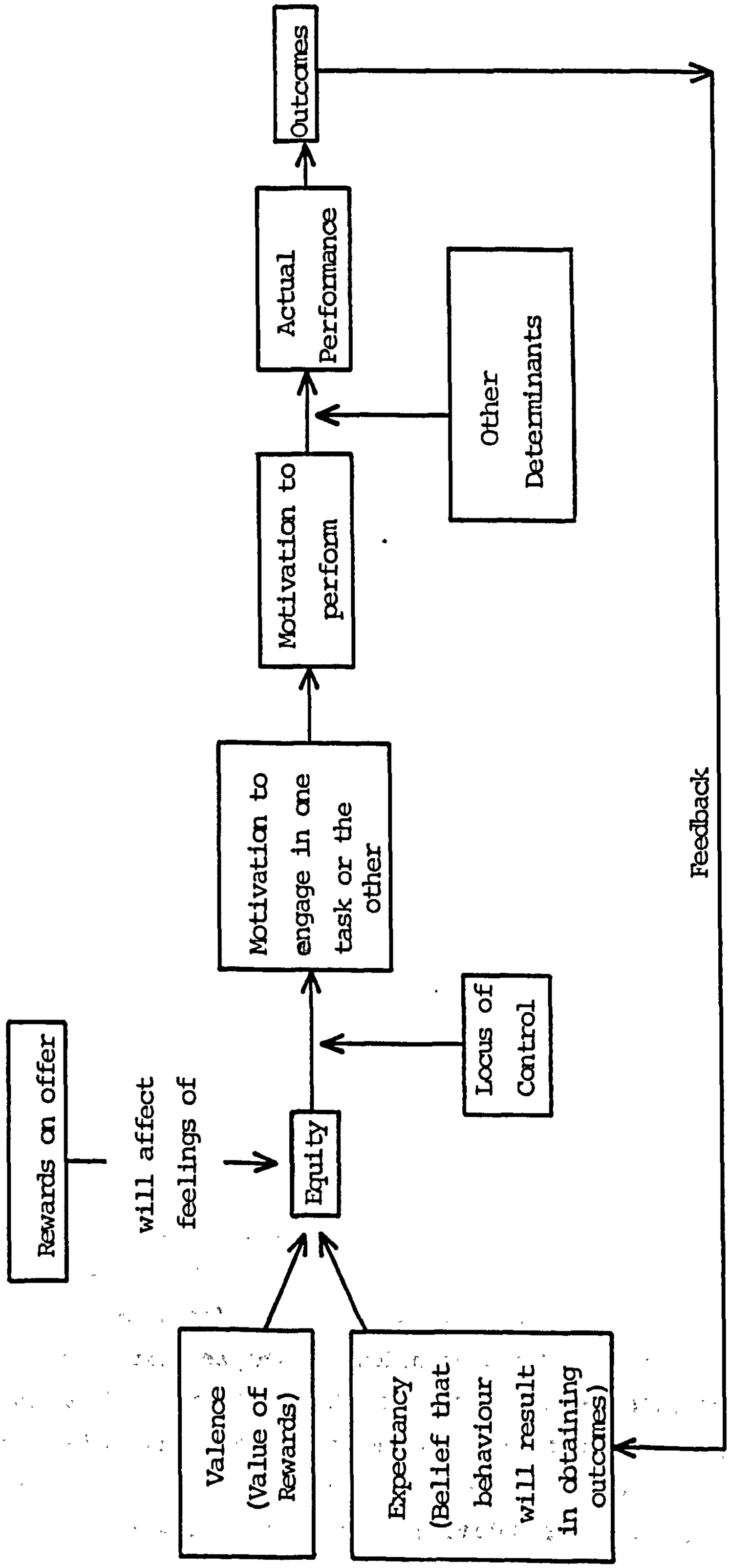



Figure 2.8

# CHAPTER 3

# WORK ORIENTATION

## Introduction

A number of writers (e.g. Brown, 1973; Weeks, 1974) point out that Work Orientation is rooted in the Social Action approach to studying human nature. While Social Action is more a methodology than a theory, in view of the direction it has given to the Work Orientation perspective it will be useful to outline the approach before considering Work Orientation in detail.

## Social Action Approach

The Social Action approach has been seen by several theorists (e.g. Cohen, 1968; Silverman, 1971; Brown, 1973; Russell, 1980) as overcoming the deficiencies of two broadly accepted approaches to understanding work behaviour. These are known as the Human Relations approach, and the technological approach of such as Woodward (1965), which sees behaviour and attitudes determined, or at least narrowly constrained, by technology. Neither of these frameworks regard the worker's own objectives and definition of the situation as an important independent variable.

The Social Action approach, unlike the two earlier schools, emphasises the meaningfulness of the work situation to the worker, according to Silverman. It is a collection of ideas that Ribeaux and Poppleton (1978) point out, derives from symbolic interactionism; a sociological approach where the essential feature is that all events, institutions and relationships are seen in terms of what they mean to the perceiver. Reality consists of the interaction of the worlds of symbolisation and meaning of the individuals concerned. Thus,

organisations may only be said to exist in the sense that they are shared perceptions of the perceivers; that is, that the perceivers attribute the same meaning to them.

A similar viewpoint is evident in Brittan (1973) in his discussion of social facts, which he maintains can be seen as having a limited autonomy of their own. This autonomy, however, is only relevant within the context of the significance and meaning that individuals attach to them. He too sees social facts as symbolic facts - they can only be studied by acknowledging that the objective world is largely man made and the immediacy of the empirical world is saturated with the meaning that men attribute to objects. Moreover, Weber (1962) in his definition of social action, emphasises the subjective meaning which the actor attaches to his action and the account which he takes of the behaviour of others.

Both Brown, and Ribeaux and Poppleton point out that there is a clear philosophical split between the Action approach and the two earlier approaches of Human Relations and technological determinism. Ribeaux and Poppleton maintain that the key point of conflict is whether action is derivative of the system or vice versa. As Dawe (1970) puts it, 'One views action as derivative of the system, while the other views system as the derivative of action'.

Systems theory, implied in the above quotation, is criticised by Silverman in that it is only, what he calls, 'the objectification of a conceptual construct'. To conceptualise an organisation as a system does not confer reality on that idea, or give it the characteristics of an object which thinks and acts. It is the organisation and not the idea which should be studied. What is in Social Action terms, 'a social construct', cannot think and act and can only be said to do so to the extent that organisations have common meaning to the individuals in it, which results in some concensus in their actions.

As Weeks notes, Social Action does not accept as given the nature and consistency of organisation goals defined by the formal objectivity of

organisations, and the approach criticises the emphasis placed by structural analysis on an uncritical acceptance of work rules and procedures. The Social Action perspective focuses on the way more specific goals (values) are imported into and generated within organisations by individuals and groups. The concern is to observe the socially generated values, interests and norms that occur in organisational contexts and to investigate the processes of their maintenance and change in relation to internal social interaction and external environmental changes. Thus, the Social Action approach, while sometimes being thought of as emphasising informal procedures, goes further than this, and indeed the distinction between formal and informal may be of limited use. The approach is concerned with action, i.e. with what people do, and has a philosophical basis in existentialism, with an interest in the 'here and now' and the process by which rules are generated and sustained.

Weeks (1974) outlines further, the kind of perspective that the approach takes towards the work situation. The roles the individual takes on in an organisation are an interpretation, partly constructed from job descriptions and authority distribution, and partly developed through norms. However, the person in the organisation is not seen as arriving socially naked into the organisation ready to take on the social conventions of his work situation. While work is likely to be important to the individual, values and attitudes generated outside the workplace, for instance at home and through social life, will also be influential in his interpretation of his work role. Thus, there is a high possibility of a clash of values, both between work and non-work, and between groups within the organisation. Such a view enables us to see how inconsistencies can develop between different aspects of the worker's behaviour - often called role strain. It also makes us aware of the way inconsistencies of this kind are dealt with by the individual and highlights the problem of formation, change and management of self identity by the individual. However, such an examination of the way the individual adapts the presentation of his self towards others may demand a conception of personal characteristics more free floating and socially influenced than the view presented by the traditional theories.

The Social Action approach, however, has obvious difficulties. The fact that Social Action apologists maintain it is not a theory, but a way of looking at social phenomena does not make the looseness of the approach, its vagueness, and to some extent confusion, for instance, with regard to the generation of work values, any less problematic. Weeks points to a number of problems. One is in relation to the source and scope of meanings and how they can be measured. Moreover, according to Weeks, a social action presupposes a social setting and it is in accounting for the origin of the social setting and in particular the distribution of power in that setting, that the Social Action approach falls short of its own goals. Additionally, as implied above, by concentrating on the perceptions and definitions used by the actors in an organisation, as a basis for building up an explanation of organisational behaviour, claims to being 'scientific' are reduced, for the possibility of testing any theory arrived at in this manner may well be limited and contaminated by a wide range of uncontrollable factors.

Nevertheless, while the approach does have problems, it is an attempt to get round the somewhat restricted approaches of more traditional attempts to understand work behaviour, which the Social Action approach sees as having misrepresented the social reality that they consider.

## Goldthorpe and Work Orientation Studies

According to Brown (1973), the most influential statement of the Social Action approach in industrial sociology was the research of Goldthorpe and his colleagues in the mid 1960s into affluent workers. The study (1968) which looked at manual workers in three firms in Luton came to the general conclusion that what the authors called the 'instrumental orientation' to work revealed by the workers, was in large part a reflection of the more general position that these workers held in society.

The Luton workers were 'instrumental' in the sense that they attended work in order to acquire the income necessary to support a valued way of life, of which work itself was not an integral part. These employees had deliberately sought their particular jobs and were aware of the other rewards and job types they were giving up, but were willing to forgo other rewards to maximise earnings. Goldthorpe et al suggested that the workers' major emotional investments were in relationships with wives and children, and these relationships were in turn their major source of social and psychological support. Family, rather than work, was the central life interest. In other words, the workers' most significant others were members of the workers' family rather than fellow trade unionists or leisure companions.

For Goldthorpe, the starting point for analysing the individual and the work situation was with the ordering of wants and expectations relative to work and the meaning that was given to work as a result. The meaning was seen as a product of the workers' wider societal environment and experience. Thus, for Goldthorpe, the actual objectives of the workers and their definition of the situation, which was derived from factors outside work, were of prime importance in understanding the workers' behaviour at work.

Goldthorpe did accept that changing family circumstances would possibly affect this work orientation and saw the stage in the life cycle as important. The study's sample was of geographically mobile married males, between 21 and 46 years old, who had experienced downward social mobility. As Goldthorpe noted, younger workers without the same background and family concerns might not be so instrumentally orientated. Moreover, he and his colleagues argued that instrumentality is not alone a product of family circumstances per se. The question of the economic and social implications of having a young family leading to having an instrumental view of work, is ultimately one of values, specifically the value that is set on a steadily rising standard of domestic living and on devoting one's non-working life to one's wife and children. Even so, the essence, as Russell (1980) points out, of Goldthorpe's explanatory hypothesis, predicted that

under certain conditions, orientations to work would cast a pervasive influence on attitudes, behaviours and relationships within the work situation, while themselves being largely determined externally to this situation. Additionally, although Goldthorpe et al's work was concerned with instrumental workers, they also offered solidaristic and bureaucratic orientations to account for other possible approaches to work, which again, would have a prime effect on work behaviour.

This instrumental orientation, however, did not necessarily mean that the workers were 'alienated', according to Goldthorpe. This, of course, depends on what is meant by alienation, which is a concept that has been so widely applied that some commentators (e.g. Fox 1976) doubt whether it is a useful analytical tool. Even for Marx, who did most to develop its application to work, to man's personal experience, and to his relations with other men, it took on a variety of expressions. Neverthless, Goldthorpe et al, maintain that if 'alienation' is interpreted in the way that writers such as Blauner (1967) use it, to refer to a syndrome of 'objective conditions and subjective feeling states' the affluent workers in their study were not alienated. Goldthorpe and his colleagues argue that their respondents had made a bargain with their firms, in terms of reward for effort, which was better than most others available to them, but which was also a priority for them at that time. Goldthorpe et al suggest that these workers were disposed to define their relationship with their firm more as one of reciprocity and mutual accomodation, rather than as one of coercion and exploitation. However, this of course, does not mean that a worker who stresses the extrinsic rewards and instrumental significance of work cannot be alienated, but depends on the individual's state of mind and set of attitudes to his or her conditions.

Thus for Goldthorpe, orientation to work was seen as a crucial independent variable relative to what occurs in the work situation. It was an influential contribution to understanding work behaviour and furthered the development of the social action approach. As Brown

points out, Goldthorpe's work avoided the over narrow conception of many human relations theorists and the over deterministic approach of theorists concerned with the influence of technology in shaping workers' behaviour.

## Subsequent Debate

Despite the contribution Goldthorpe's work made, it also started a controversy that has a number of aspects. The original challenge came from Daniel (1969, 1973), but several difficulties with the Work Orientation approach have been raised by other writers. Unfortunately, although some of the writers seem to assume they are stating the difficulties clearly, there seems to be some confusion about what some of the problems are. Nevertheless, as well as difficulties with defining and measuring Work Orientation, those problems that writers have mainly addressed themselves to, sometimes implicitly, seem to be,

- whether it is circumstances external to the workplace or work circumstances themselves that are the prime determinant of an individual's work values,
- whether it is circumstances external to the workplace or work circumstances themselves that are the prime determinant of behaviour at work,
- whether work orientations, externally created, change in relation to changes at work,
- whether work orientations, internally created, are responsive to external changes over time,
- whether the individual has, in any case, an explicit, overall and clearly defined set of priorities in relation to work,
- whether increases in demands along one dimension are at the expense of those along another.

## Daniel's Criticism of Goldthorpe

Daniel's criticism of Goldthorpe also extended to what Daniel (1973) called the psychologically universalistic, or Human Relations, school. He argued that both approaches assumed,

- that a worker has one, overall, ordered, consistent set of priorities in what he wants from a job, and that this set of priorities is manifested in all aspects of his occupational behaviour and choices,
- that an increase in demands along one dimension, for instance, pay, must be at the expense of those along another, for instance, task variety.

These assumptions, Daniel maintains, are invalid. He argues that there are different sets of priorities that relate to different situations and contexts at work, and that an increase in demand for greater material rewards does not necessarily mean a reduction in demand for intrinsic satisficers.

While Daniel sees the Work Orientation approach of Goldthorpe having advantages over the Human Relations school, as Work Orientation allows the possibility of variation between different types and levels of worker, and the possibility of intrinsic conflict between the goals of workers and the enterprise, nevertheless, he argues that the assumptions made by Goldthorpe do not stand up to empirical testing. These assumptions Daniel maintains, are that,

- workers have a consistent set of priorities in the qualities they seek from their jobs,
- their priorities are revealed by the critical occupational decisions they make, which are based on an evaluation of job merits,
- the pattern of priorities revealed by these choices represents their Work Orientation,
- by determining Work Orientation you can predict industrial behaviour, as you know the needs the individual brings to work and how he or she will respond to various rewards.

Daniel claims that all that can be predicted from job choice decisions and priorities, is job choice behaviour. Explanations of choice of job, behaviour in a job, and leaving a job are likely to be different, and the instrumental worker in one context may become intrinsically orientated in another.

Daniel maintains that perceived interests will change with the social situation, and an overemphasis on prior orientation can seriously reduce the analytical potential of an investigation. As Russell notes, this prior orientation is based on the assumption that the worker, if instrumenatally orientated, will be attracted to the job by money, evaluate the job in terms of money, and would endorse money as a determinant of withdrawal. It is this consistency that Daniel challenges and not the right of researchers to use orientation to explain each of these things separately. Indeed, Bechhofer (1973) admits that the dynamic nature of orientation was, perhaps, insufficiently emphasised in the 'Affluent Worker',

> 'We might have brought more into the analysis, the changes that take place after the worker has entered employment'.

Daniel supports his claims with evidence based on his research into productivity deals (1970, 1973). The first of these was in a continuous process industry where changes, in such as the flexibility of the number of grades, were asked of the workforce by management in return for increased extrinsic and intrinsic rewards. Daniel argues that the point at which one studied the value orientations of the employees, that is, either at the bargaining stage or later, was crucial for understanding their work orientations. The workers resisted the demands of management, despite previously good working relationships, and the changes were pushed through with tough bargaining. During the negotiations money was seen by the employees as the most favoured aspect of the changes. When Daniel interviewed the men nine months later, 65% favoured the changes and the majority emphasised greater job interest and satisfaction as most important. Daniel argues that this indicates that work priorities change with the work

context. He claims that his research indicates that there was virtually a complete reversal in the priorities of the workers when the reference point was the work context rather than the negotiating context. If the research had been conducted only at the negotiating stage it would have confirmed Goldthorpe's claims, but nine months later it would seem to support the Human Relations school's point of view. The important point for Daniel is the changing context. He sees his research as questioning the notion of fixed priorities at work as evaluations were reversed dramatically at different points in time and with different reference points.

A second example of Daniel's concerns instrumental workers in the nylon spinning industry. Here, employees were involved, at the encouragement of the management, in discussion groups which considered proposed changes in the workplace. These changes were to be accompanied by increased intrinsic and extrinsic rewards. Daniel maintains that in Goldthorpe's terms the workers would have been expected to be interested only in increased earnings. Being so disinterested and uninvolved in the work itself they would be prepared to accept virtually any change in return for higher pay. Moreover, being primarily concerned with increased earnings, they would have been concerned to ensure the minimum amount of change and improvement for the maximum pay increases. But Daniel maintains that the involvement in the discussion groups was high and the level of response good, as was the quality of the suggestions - further evidence against Goldthorpe. Moreover, Daniel points out that at the negotiating stage, 42% of those studied said that earnings were the most important aspect of the agreement, yet after the agreement, there was more support for a wider range of rewards other than money. Daniel argues that this again confirms that quite different aspects of work are salient in different contexts.

Daniel's conclusion is that the focus on one context has been misguided and that it is fallacious to assume that this represents an overall generalised set of priorities, attitudes and motivations that operate in all situations. Additionally, he argues that both

Goldthorpe and the Human Relations school have not only focussed on one context, but have studied workplaces that have not manifested the fundamental conflict between management and labour, but are characterised by,

- relatively low initial perception of conflict of interest between employer and employees, with a paternalistic management attaching high importance to responsibilities towards employees,
- a non-unionised labour force, content to leave management to manage as best it sees fit, not seeking to restrict management's discretion or resist change in any organised or collective manner,
- semi-rural environment with no history of mass unemployment, no prolonged bitter battles with employers for union recognition and minimum rights, characteristic of industrial areas,

Moreover, Daniel argues that while there is a spectrum in terms of basic attitudes to management and overall orientations to work, there are many people in the middle seeking both extrinsic and intrinsic rewards. Such individuals see harmony or conflict with management depending on the context. Daniel maintains that as far as understanding the behaviour of such workers is concerned, the variations in their priorities and attitudes, according to context, are more important than any overall or general orientation or set of priorities. The question for them is not what are they more interested in, but when, in what situations, and under what circumstances are they more interested in one rather than another.

Support for Daniel

Support for Daniel comes from Russell, who maintains that need perception is very responsive to situational context. His research of 50 skillcentre trainees, whose work priorities were assesssed while training and later when they had jobs, supports Daniel's assertion that it is impossible to predict responses in one context, such as the

actual work environment, from the priorities revealed by the individual's attitudes and behaviour in another, such as job choice. Russell believes that his study provides some empirical support for the importance of changing social situations influencing orientations to work, which he argues suggests that dynamic orientations have greater explanatory and predictive value than the fixed orientation perspective.

Brown also maintains that orientation is dynamic in nature and should be viewed more as a process in relation to context. He argues that the emphasis placed on workers' objectives and priorities in entering employment as determinants of attitudes and behaviour has been misplaced. He maintains that his research (Brown 1973) in the shipbuilding industry, supports the importance of context, and different objectives may receive different priority in different circumstances. When he asked workers what factors they look for in a job and then what did they most like about working in a shipyard, he received different answers and concludes that the emphasis on different contexts, implied by the questioning, is the reason for this difference.

Brown maintains that this emphasis on orientations from outside the workplace as determinants of in-work behaviour has been possible because the idea has been seen as unproblematic and incorporated into a simple explanatory model. He argues that what is more likely than that postulated by Goldthorpe, is some interactive relationship between objectives and expectations, and work. This is a point that Goldthorpe and also Ingham (1967) seem to accept for past experience, but not in relation to current job attitudes. He also maintains that his research with shipbuilding workers shows the importance of socialisation at work in relation to work orientation. Over a period of 2½ years, he found that the percentage of shipbuilding apprentices who thought they would like a foreman's job, fell. He suggests that this may have been because the workers saw their chances of getting a foreman's job as less after time on the job, than what they first thought. Moreover, attitudes also changed during the time period towards the Trade Unions, with a call for greater participation for

them in firm decision making, with a 'procedural' orientation being evident among the workers.

Fox (1971) argues that consideration must be given to the priorities amongst worker's objectives and aspirations and the way they are influenced by the practical possibilities of realising them. He believes that workers would like to have interesting jobs with high pay, but give low priority to the former because they are unlikely to find both. This order of priorities may change over the long, or even the short, term. Also, Hedy Brown (1981) maintains that the interviews Goldthorpe conducted, revealed that the employees valued their economic rewards as compensation for lack of satisfaction at work, not that they failed to value the latter. She also notes that Cotgrove in his study of nylon spinners, found the workers had a realistic appreciation of the limits of intrinsic satisfaction available to them at work, which is quite different from saying they would not have preferred to have engaged in some challenging and autonomous work. This implies that in a different work context the expression of such values might be less evident.

In the wider context, Fox maintains that for many, non-work factors are influenced by the industry they work in, anyway. In traditional areas, for instance, shipbuilding communities, even if work is derived from the family and community, they themselves have been influenced by the industry. Brown concludes that consequently the subjective disposition of the actors cannot be treated as independent variables relative to the work situation.

## Support for Goldthorpe and the Orientation Approach

There would seem to be, then, much evidence against Goldthorpe. However, while these criticisms certainly raise interesting questions, and do indicate that work orientation is complex, they do not completely demolish Goldthorpe's position. With regard to Daniel's work, Whelan (1976) maintains that the data presented in the first case con-

cerning the continuous process workers, bears no relationship to the conclusions drawn. Whelan points out that Daniel's figures show that only a small number (or less than Daniel implies) of respondents referred to intrinsic factors alone and he says that this does not establish 'virtually a complete reversal in priorities', which Daniel claims.

Moreover, Goldthorpe does not argue that instrumental workers are completely desensitised to intrinsic factors as Daniel assumes. The major point of the Affluent Worker studies was that you could have negative attitudes towards work on the line, coexisting with positive attitudes towards employers as a firm to work for, approval of industrial relations practices and teamwork, etc.

With regard to Daniel's second case, Goldthorpe (1972) has replied that the worker's behaviour highlighted by Daniel is not unusual. To substantiate his case, Daniel would have to show that the experience of the new work conditions led workers to press management for further job enlargement, variety etc, even at a cost of foregoing some wage increases, or that workers moved elsewhere to jobs more rewarding intrinsically, yet less well paid.

Whelan maintains that it is not possible to draw definite conclusions from Brown's study either, because of Brown's small sample. Neither should the criticisms above imply that the Work Orientation approach does not have some successful aspects. Despite the challenges, as Brown in fact notes, Goldthorpe did show that in many cases affluent workers with an instrumental orientation left employment in jobs they preferred (in terms of tasks) to take jobs giving them the highest possible material rewards. They were stable in such employment, despite its tedium because it met their expectations. Ingham found that intrinsically orientated workers in Bradford chose large, bureaucratic, high wage plants, but workers with 'non-economistic expressive' orientations sought work in smaller plants with lower pay, but more satisfying social relations and more intrinsically rewarding jobs. In both cases labour stability was high.

Blackburn and Mann's (1979) fairly comprehensive investigation of orientation, which involved 1,000 employees in nine industrial organisations, concluded that people do have stable orientations. These are not just a product of experience in the present job, and underly choice rather than merely arising out of the act of choosing. In fact, they contended that individuals are not differentiated so much by their type of work orientation, but by the strength of their orientation. However, they also admitted that their enquiry produced scarcely any evidence to support the notion of a strong orientation, although the evidence was favourable to a 'weak' form of orientation. Moreover, they also suggested that orientations have limits; a manual worker cannot work in one of the professions and thus, a workers preferences are limited by a realistic assessment of his occupational stratification.

Nevertheless, Goldthorpe has also used the instrumental orientation to explain satisfaction with employee attitudes to, and participation in, trade union activities and lack of involvement in social relations with fellow workers outside work. Moreover, other writers, apart from Goldthorpe, have used the notion of orientation in their work. For example, Cotgrove and Box (1970) have explained job choices of scientists in terms of three orientations. Fox (1971) has also used an orientation framework which includes a distinction between substantive orientations (desire for more money or security or more challenging work) and procedural orientations (desire to play some part in decision making procedures in the organisation). These latter orientations, may be either instrumental (as a means to better decisions for the individual) or terminal (as a value in itself). Moreover, as Brown points out, there have been many other studies with different frameworks, but which have emphasised the importance of considering the objectives of the actor in any explanation of social action and social relations, such as Collins (1946), Turner and Lawrence (1968), and also Mumford and Banks (1967) who saw the need to take into account the extent to which clerks have work centred goals.

## Further Difficulties with the Orientation Concept

Despite some popularity, however, the use of the concept of work orientation, as Bennett (1978) points out, in analysing organisations and especially in providing a framework that can be used by managers, has not been well achieved. One of the reasons for this is that the means of measuring orientation has been lacking, although he claims in his latest work (Bennett 1981) to have gone some way to overcoming this problem.

Another problem Bennett raises is the lack of definition, and certainly the literature is marked by a lack of clarity about what work orientation involves, with attitudes, needs, values and priorities all implicitly involved in the claim to being core to the orientation concept. Wynn (1980) also points to the confusion surrounding orientation, with the words, orientation, perception, definition, and meaning often used interchangeably by critics of the social action approach. Even those who define it, sometimes leave us none the wiser. Blackburn and Mann have defined orientation as, 'a central organising principle which underlies peoples' attempts to make sense of their lives', which can hardly be seen as reducing the vagueness surrounding the concept.

Bennett attempts to bring some clarity into the debate, although he sometimes manages to confuse, as with aspects of his 1978 and 1981 works noted below. He defines orientation as a, 'measure of reflection of how an individual views a particular situation in terms of what he derives from it and the extent to which he expects these desires to be achieved in it'. He derives this from Goldthorpe and Daniel's writings, who both allude to a definition but never give one. However, in his most recent book (1981), Bennett actually quotes statements on work orientation from both authors. Goldthorpe's (1966) view of orientations is an 'ordering of wants and expectations relative to work', while Daniel's (1967) definition of orientation is quoted as, 'the actors definition of the work situation in terms of the expectations and needs he brings to it as a result of his sociali-

sation outside the working environment'. Bennett maintains that this is supportive of his own conceptualisation of work orientation, except for the last part of the definition, which is particularly confusing as he does not say why he rejects this aspect, and socialisation outside work is, of course, of particular importance to work orientation.

Child (1969) has also defined the concept and sees it as 'the ordered expectations and goals an individual has regarding the work situation'. However, Bennett argues (and the review so far lends support to Bennett's criticism) that Child's definition implies some hierarchical rigidity which may not exist. Different orientations may exist at the same level and intensity, but are invoked differentially by certain goal symbols in the immediate environment.

There is a need, according to Bennett, for a classification and measure of orientations which will allow for hierarchy and non-exclusiveness. One possibility that he notes is Aldefer's (1972) three type classification in relation to needs, of existence, relatedness and growth. He argues that although it is needs that are classified by Aldefer, as Rosenberg (1957) points out, such a classification could apply equally well to values. Moreover, there are particular difficulties with needs, according to Bennett. He maintains (although this is controversial) that Aldefer seems to miss the point that whilst a need may be dominant, the individual's expectation of it being satisfied may be low, thus reducing its motivational effect. The concept of orientation, Bennett argues, avoids these problems.

Bennett's classification is influenced by the need theorists, but draws essentially on the 'views of man' discussed by Langer and Schein (1965), and on the motives of man as discussed by Brown (1954). His classes are,

Instrumental - an orientation towards material gain and those material objects necessary to maintain life and enhance comfort and security of living,

Relational - an orientation towards interaction with other people, and establishing meaningful

relationships with them,

Personal - an orientation towards self-engaging, self absorbing and self-developing activities,

Bennett maintains that these orientations are both observable and measurable, and that they can be used in a predictive system of practical benefit. This system, as Russell points out, sees the right sort of fit between orientations and organisational variables, with Bennett placing emphasis on realigning orientations through training and development programmes, and by screening out those 'applicants with orientations not congruent to the expected orientations profile'. Bennett maintains that redesign should only occur when it is clear that the stable component of employee orientations is at variance with the current demands of organisational life. For Bennett, the main issue is how to design work to accomodate orientations, especially at the design stage of developing new or modified work situations.

Unfortunately, however, Bennett would not seem to have solved many of the problems with orientations. Indeed, he may merely be perpetuating old difficulties. One challenge comes from Wynn (1980). He maintains that the typology that has gained widest acceptance is what he sees as the Goldthorpe/Bennett typology. He seems to lump these together, not because the typologies are the same, but because the underlying principles of their use are similar. Wynn maintains that researchers adopting this typology are in danger of rediscovering the wheel, or at least the Stimulus, Organism, Response (S-O-R) model of behaviour and he criticises Bennett for still applying these principles in 1978 with his four stage process aimed at matching orientations of individuals with organisational profiles, to obtain a desired behavioural profile. He argues that although the terminology has changed, the S-O-R principles are the same; that is, to obtain a behavioural response (behavioural profile) one must apply the correct stimulus (organisational profile) to the organism (individual orientation). Wynn maintains that this approach is wrong because of Bennett's confusion of the meaning of orientation, and Russell maintains too, that Bennett's work is contradictory and confusing, although for Russell this can be traced to the inattention given to the locus of control.

In fact, Russell goes further, arguing that such orientations should be derived from empirical investigation and left as an open question rather than established by researchers as categories before investigation begins.

Finally, a number of methodological problems are raised by Brown which it will be useful to note here. He points out that determining orientation to work, or a worker's aims and objectives in employment, is difficult. In so far as orientations are constructs of the investigator, it is crucial to know how closely they reflect the actual definitions of the situation of the actors. Brown feels that the emphasis by researchers on questionnaires has been particularly limiting. However, a more fundamental problem seen by Brown is the question of how far does any worker's expression of his objectives in work merely reflect the meanings culturally available to him and considered appropriate as a reply to questions, for example, about priorities in choosing a job. Respondents may consider that only certain sorts of reasons will be accepted as legitimising their action. Thus, other objectives may be lost sight of even by the actors themselves. But Brown goes further. He raises the question of whether we are consciously aware of objectives, except when major events occur, and even if one does consider such objectives, can they ever be rational or objectively thought of. Does anyone have clear objectives in their lives anyway?

Some, such as Ingham (1967), on the other hand, maintain that workers do give rational and reasonably well informed choices to achieve clear objectives. This is important, as the explanatory value of orientation to work depends, at least in part, on their clarity and stability. Goldthorpe's affluent workers had their orientations straightforwardly and unambiguously determined. However, Brown maintains that even if these orientations were correctly identified, such narrow instrumental orientations are atypical and cannot be generalised from. If an individual has one objective then there are no difficulties with priorities, but Brown argues that most people have a number of objectives and it may not be clear to individuals themselves to which they attach most importance.

## Discussion

Thus, the approach of looking at organisational behaviour from the point of view of work orientation is marked by controversy. Even Whelan, who maintains that the argument that orientations are totally dependent on context and unstable over time, is not established by the data produced by Daniel and Brown, admits that it is doubtful that orientations determine most aspects of work behaviour in the straightforward way outlined in the 'Affluent Worker'. Nevertheless, despite Goldthorpe's critics, and while work is likely to be an important influence in determining work behaviour, it would seem to be particularly narrow to abandon the idea that non-work derived values and attitudes will also be influential in the employees' interpretation and perception of work. Indeed, few of the critics argue that the social action approach should be totally abandoned and it is likely that many would accept, in principle, Goldthorpe's suggestion that instead of looking at workers in terms of needs and in contrast to the approaches that begin with some general or normative psychology of individual needs at work, the action frame of reference should be used within which actors' own definitions of the situation in which they are engaged are taken as an initial basis for the explanation of their social behaviour and relationships. The important point seems to be, an awareness of Brown's concern and caution, that having discovered a general work orientaion it may not serve as a blanket explanation covering all situations. Yet, because there are difficulties this should not mean that the focus of concern should swing entirely back inside the factory gates and be dominated by work socialisation. None of the opinions presented would seem to justify such an emphasis, although this seems to be the direction some seem to want to take the field. Bennett's (1981) attempt to measure work orientations involves instruments that make little attempt to establish those values that are a product of 'out-plant' factors, while Russell implies that the dynamic conception of orientation involves the manipulation of the socio-technical system by management in order to increase economic performance, with again, no acknowledgement of the non-work environment.

Brown argues that attempts should be made to develop the approach emphasising actors' own definitions of the situation, but exploring the complex problems of systems of meaning, ways they are created, sustained and changed. However, from the above review this would seem to be easier said than done and frought with some difficulty. Nevertheless, the main benefit of the research so far would seem to be, not in pointing to aspects of the work orientation approach that are completely in error; indeed, the case for or against any particular work orientation angle does not seem to be proven; but to point to the problem areas that research in this area should, at least, show recognition of.

One should be aware, in the first place, of Russell's contention that rather than have work orientation typologies established in an untested model, work value typologies might be better treated as an empirical question. One should also be aware that work values are possibly the product of a two-way relationship between the 'extra-work' and 'intra-work' environments. As Weeks (1974) notes, one needs to consider the consistency with which such views are held and also their relative endurance or stability. One should be aware of the possible dynamic nature of work orientation and not discount the possibilities of priorities changing as contexts within which choices are made change. These changes may not only be in the individual's non-working life, but also in the organisation as well. One should also be aware that the individual may emphasise different values when considering job choice, behaviour at work, and job leaving. Finally, one should note Brown's point that individuals may not, in fact, have conscious job priorities, at least all of the time.

The framework, partly developed earlier and presented later in full, attempts to take most of these problems into account. Some of them can be excluded from the discussion here. There are, for instance, particular methodological difficulties that the above points raise, especially perhaps, in accounting for the dynamic aspects of orientation which are better considered later. The question of whether we are aware of our work priorities is an empirical rather than theoreti-

cal problem. Moreover, as my concern is with the individual at work, the problems of initial job choice need not be discussed.

In looking at the individual at work, the literature review would seem to slant towards the need to take account of the possibility that values are influenced and sustained by both outside-work and inside-work factors. This seems to be, in principle, a theoretically acceptable accomodation from the suggestions noted above. But what is glaringly lacking is any attempt to ascertain what is changing and why. Is it values, attitudes, needs, preferences, priorities or what? I do not believe that the stable and unstable components of orientation, that many writers have come to assume exist, are easy to detect or measure. But the vague definition of orientation given by writers, if at all, the lack of attempts to specify which aspects of the individual are changing and the inadequacy of explanatory models must be, in part, to blame.

Alone I do not believe that the work orientation approach is enough. The argument here is that whether the individual does adapt to changing work contexts and what other possible behaviours he might adopt, is more fully explained by a model that takes account of both his work orientation and other behavioural aspects, noted in the previous section on cognitive process theories, such as social comparison processes and locus of control aspects. Blunt (1981) has specifically attempted a marriage between these two perspectives, but other writers such as Bennett and Wynn, have noted that an expectancy model might usefully supplement the work orientation approach. Indeed, the whole question of values is closely related to valence of outcomes in the expectancy approach. Nevertheless, what is being contended here is not only that the work orientation approach on its own is not an adequate explanation of motivation, but that it is also inadequate in not fully explaining what I believe is a central concept, that is the individual's value system and particularly the priority he or she gives to a number of particularly crucial values. This is not to deny that many writers accept implicitly the importace of values in work orientation, but having acknowledged the concept's role, it then often seems to disappear from further analysis.

## Conclusion

In an attempt to draw together the main aspects of the Work Orientation approach, one finds that in one sense this seems to be fairly straightforward. The perspective broadly argues that an individual's environment, external to the workplace will have a dominant influence on his mental approach to work, and consequently, his behaviour within the workplace. However, having stated this, then tying down the specific or key items of the work orientation approach, as the review above indicates, is hardly straightforward. There are a number of key debates, but none of the central concepts of the kind that were evident among the motivational theories of the previous chapter.

The main concept, of course, is an individual's work orientation, but no definition of this has general acceptability. It would seem that one could take any, or all, of the concepts, (such as attitudes, needs or priorities), contained within the implied definitions of various authors, and still remain within a work orientation perspective. To some extent the notion of need has had some prominence. This may be partly due to other theoretical schools, such as that of 'Human Relations' where the concept of need has been dominant and which have had some influence on later developments like work orientation. It is also partly due to the complexity of the area. Although Goldthorpe et al note, that while from a psychological standpoint the attempt to specify human needs may be legitimate and relevant, one cannot proceed directly from this to specify the wants and expectations of individuals in relation to aspects of their social lives. Specifying wants and expectations is far from straightforward and the confusion and lack of clarity has led some authors, such as Bennett, to fall back on to the notion of need.

If the starting point for looking at work orientation for most authors is vague, then, not unsurprisingly, the debates that surround work orientation, if not vague, are certainly inconclusive. Whether we have a clearly identifiable work orientation in the first place and

its nature; whether our work orientation affects our work approach; whether work affects our work orientation; and whether and how work orientations change over time, still remain open questions. Moreover, these questions are hardly likely to be easily resolved, not only because the empirical support is not conclusive for any of the arguments, but also because of the underlying theoretical assumptions and perspectives of different authors. Although supposedly, work orientation is part of a symbolic interactionist perspective, many of the writers with their underlying notions of prediction and causality, begin from a structuralist perspective. The problem is not necessarily who is correct, but that there is an inherent conflict before one begins the debate.

Is it possible, then, to draw out from the analysis of the Work Orientation literature, the most useful aspects that might be included in an alternative framework? Unfortunately, as the above indicates, this is not easy. While taking account of the concerns raised by the authors noted earlier, as with cognitive process theories, there seem to be few core aspects of the work orientation approach that are prerequisites or unchallenged claimants to be included in a thesis on the subject. Certainly, there is no definition or typology of work orientations that has any overwhelming justification for being utilised. But the general notion that societal influences will affect in some way an individual's approach to work would seem to be important in understanding organisational behaviour and cannot be neglected. While how one investigates that, however, would then seem to depend on the perspective of the author, nevertheless, the dominance of some concepts in investigations, such as that of need, from the comments above, would seem to have produced only limited explanations. A possibly more useful concept that may go some way towards linking psychological aspects with broader influences, and which could play a significant part as a central ordering concept in the Work Orientation approach, is that of values. The next chapter considers the concept of values in more detail.

# CHAPTER 4

# VALUES

## Introduction

This chapter on values, including the section concerned with cognitive change, leans heavily on Rokeach (1973). The emphasis is more on outlining Rokeach's point of view than providing a comprehensive review of the literature in this area, or a critique of Rokeach's work. The concern here is with outlining the concept of values and how they possibly relate to a person's psychological make-up. The reason for this partly stems from the writer's belief (and because of the nature of values, it must to a large extent be a belief rather than a position arrived at because of strong empirical evidence) that values are central to understanding work feelings and behaviour. It also stems from the feeling that if the presentation of such an explanatory system is to be made, one also needs to tie this into a broader explanation of psychological functioning.

Many writers in this area have considered the kind of mental contructs that will be considered here. Usually, they have been concerned with needs or attitudes. But not all of them try to place these within a psychological theory, and I think this is a shortcoming. It would seem to me that explanations of behaviour that stop short of the mental construct and fail to offer at least some reasoning as to how they think these constructs operate within the psychological make-up of the individual, nomatter whether this is testable or not, are perhaps not fully contributing to the understanding they purport to be furthering. Perhaps the muddle surrounding orientation partly stems from writers' lack of attempts to outline the broader mental framework that they see their concepts within. While a sociologist might argue that his/her purpose is not concerned with the psychological condition of individuals, even so, such a rigid mental division is, arguably, limited.

It is one, where, in some cases, as here, a more integrated approach might lead to greater understanding.

## Values - Definition

Smith (1969) has drawn attention to the conceptual disarray surrounding the value concept in the social sciences, while James (1974) notes that despite the discussion of values, few writers have attempted to define them. James also maintains that our actual knowledge about values and their origins is very limited, and she draws attention to the number of writers who have noted our collective ignorance; Hearnshaw (1954), Dukes (1955), Schwarzweller (1960), Tiedeman and O'hara (1963), Osipow (1968), Hall (1972), and Raven (1972).

James points out that values are often discussed as if they were almost indistinguishable from interests. Super (1962) maintains that values closely resemble interests, and tests designed to measure them can be used almost interchangeably. Nevertheless, James argues that values seem to represent something more basic than interests; they permeate all aspects of life, concern life's goals, and in some instances seem closely related to needs and drives. For her, however, the best definition of values is Catten's amendment to Kluckholm (1954), who maintains that, 'a value is a conception of the desirable which is implied by a set of preferential responses to symbolic desiderata', although this is hardly a definition that has the essence of precision.

Hofstede (1978), who has done a considerable amount of cross cultural work on values, is only slightly less vague in his definition of the concept. He sees values as a broad tendency to prefer certain states of affairs over others, and work values thus refer to a preference for certain states of affairs in the work situation. Rokeach (1973) tries to be a little more specific and defines a value as, 'an enduring belief that a specific mode of conduct or end state of existence is

personally or socially preferable to an opposite or converse mode of conduct or end state of existence.' Allport (1961) confirms that a value is a particular type of belief when he states, 'a value is a belief upon which a man acts by preference.'

Thus, one might argue that like all beliefs, values have cognitive, affective and behavioural components. To say a person has a value is to say that cognitively he knows the 'correct' way to behave and the correct end state to strive for. A value is affective in the sense he or she can feel emotional about it, be affectively for or against it, approve of those who exhibit positive instances and dissaprove of those who exhibit negative instances of it. A value has a behavioural component in the sense it is an intervening variable that leads to action when activated.

Goffman (1959) maintains that values can be seen as standards that guide conduct and they may do this in a variety of ways. They lead us to take particular positions on social issues, to favour one particular religious or political ideology over another and they are employed to guide presentation of the self to others. They are used to influence, evaluate and judge, praise or blame ourselves and others, and to ascertain whether we are as moral and as competent as they. They are also standards that tell us how to rationalise beliefs, attitudes and actions that would be personally and socially unacceptable; for instance, an unkind remark made to a friend rationalised as honest communication. It would be impossible to rationalise without values.

For Rokeach there are a number of important distinctions between values. First he distinguishes between an instrumental value, which is a belief concerning a desirable mode of conduct, and a terminal value, which is a desirable end-state of existence. There are two kinds of terminal value; personal and social; that is, they may be self-centered or society-centered, intrapersonal or interpersonal in focus. Salvation and peace of mind, for instance, are intrapersonal, while world peace and brotherhood are interpersonal. People may vary

in the reliability they place on such social and personal values and their attitudes and behaviour will differ from one another depending on whether their personal or societal values have priority.

There are also two kinds of instrumental value, according to Rokeach, which he divides between moral and competence values. Moral values refer mainly to modes of behaviour and only to those kinds of instrumental values that have an interpersonal focus which, when violated, arouse pangs of conscience or feelings of guilt for wrongdoing. Other instrumental values, those that may be called competence or self-actualising values, have a personal rather than interpersonal focus and do not seem to be especially concerned with morality. Their violation leads to feelings of shame about personal inadequacy rather than to feelings of guilt about wrongdoing. Behaving honestly and responsibly leads one to feel that one is behaving morally, whereas behaving logically, intelligently or imaginatively leads one to believe that one is behaving competently. A person may experience conflict between two moral values (for instance, behaving honestly and lovingly) between two competence values (imaginatively or logically) or between a moral and a competence value (to act polite or to offer intellectual criticism).

## Values and Other Concepts

The comments by James above, that some writers see values and interests as the same, and that they are also closely related to needs and drives, highlights the fact that values are sometimes thought of as indistinguishable from other concepts. Indeed, there is much interchangeability between concepts in this area, wrongly in my view, and it is worth drawing attention to ways of differentiating between values and other concepts.

While values and attitudes, and values and needs, are sometimes regarded as more or less equivalent, as Rokeach points out, man is the only animal to whom values are attributed, and while rats are spoken

of as having needs, they are not seen as having values. Thus there is a distinction between values and needs. Rokeach sees values as the cognitive representation and transformation of needs; not only of individual needs, but also of societal and institutional demands. Once such needs and demands become cognitively transformed into values they are capable of being defended, justified, advocated and exhorted as personally and socially desirable. For instance, the need for sex may be cognitively transformed into values of love or intimacy. Thus, when a person tells us about his values, he is also telling us about his needs, although how we infer needs from values, demands some caution.

In relation to attitudes, Rokeach maintains that the greater emphasis on attitudes by social psychologists over the last fifty years has not risen from any deeper conviction that man's attitudes are more important determinants of his social behaviour than his values, but evolved as a result of the more rapid development of methods for measuring attitudes. An attitude and value differ in that an attitude refers to an organisation of several beliefs around a specific object or situation, while a value refers to a single belief of a very specific kind. A value transcends objects and situations, whereas an attitude is focussed on some specified object or situation.

A person has as many values as he has learned beliefs concerning desirable modes of conduct and end states of existence, and as many attitudes as direct or indirect encounters he has had with specific objects and situations. Thus, values number in dozens while attitudes number in thousands. Moreover, values occupy a more central position than attitudes within one's personality make-up and cognitive system, and they are determinants of attitude as well as of behaviour. The greater centrality of values has been noted by others, and attitudes themselves depend upon pre-existing social values. (Allport, 1961; Watson, 1966).

## Values, Behaviour and Motivation

Rokeach maintains that values are guides and determinants of social attitudes and ideologies on the one hand, and of social behaviour on the other, and he argues that if values are standards that guide actions, then knowing a person's values should enable us to predict behaviour. This, as one might surmise, is not straightforward. It would seem that certain values are employed as standards guiding attitudes and behaviour, but others are employed as standards guiding attitudes, and others are employed as standards guiding behaviour. Thus, there is no reason to suppose that all values must serve equally as standards to guide attitudes and actions. Moreover, Rokeach points out that neither should we expect that any one value or attitude should predict behavior perfectly. Nevertheless, while he accepts it is not possible to predict all values that will give rise to a likely behaviour, it is possible to identify the main ones.

With regard to motivation, he notes that while the immediate function of values is to guide human action in daily situations, their more long ranging functions are to give expression to basic needs. Thus, values have a strong motivational component. They are motivating because the idealised modes of behaviour they are concerned with are perceived to be instrumental to the attainment of desired end goals. If we behave in all the ways prescribed by our instrumental values we would be rewarded with all the end states specified by our terminal values. They are also motivating because they are the conceptual tools and weapons that we all employ in order to maintain and enhance self-esteem.

Although what has been presented here is an outline that has been relatively free from controversy, to imply that there are not difficulties with the concept would, of course, be wrong. It is, of course, difficult to prove the existence of such mental constructs and how they relate to others. Moreover, while Rokeach does produce evidence to show a relationship between values and 'gross' behaviours, there would seem to have been very little work done in this area.

There are neither simple relationships between values and attitudes, or values and behaviour. Nevertheless, although in its infancy empirically, the concept does seem to have some predictive consistency and, as will be outlined later, is one that, possibly, can be identified and measured. Moreover, there are additional attractions with the concept in that it has a plural nature in terms of value systems. Let us carry the concept a little further.

## Value Systems and Cognitive and Behavioural Change

Value systems are an important aspect of the concept, especially for understanding value and behavioural change, as Rokeach maintains that particular acts are steered by multiple and changing clusters of values. Rokeach sees a value system as an enduring organisation of beliefs concerning preferable modes of conduct, or end states of existence, along a continuum of relative importance. It can be seen as a learned, general plan of principles and rules employed to help one choose between alternatives, resolve conflicts and make decisions.

According to Rokeach, after a value is learned it becomes integrated somehow into an organised system of values wherein each value is ordered in priority with respect to other values. He believes that such a relative conception of values helps us to define change as a reordering of priorities, and at the same time to see the total value system as relatively stable over time. Value change occurs when we relate values to each other or to values of others. Thus the relative conception of values is central.

## Self Concept

To understand the above more fully it is important to look at Rokeach's theory of cognitive and behavioural change. Before this is done, however, it might be worth pointing out that the acceptance of such an approach is not out of line with the path the thesis has taken

up to now. Rokeach's theory is essentially a theory of cognitive dissonance. Although stemming from different traditions this still relates to the cognitive process theories outlined earlier. Clearly, it has a greater connection with equity theory rather than expectancy theory, but the idea of self image, which Porter and Lawler include in their later model and the possible effects upon it, also has connections with Rokeach's outline.

Rokeach reminds us that beliefs, attitudes, terminal values and instrumental values are organised to form a single functionally interconnected belief system, wherein terminal values are more central than instrumental values, and instrumental values are more central than attitudes. He argues that there is another set of beliefs even more central to the person than his values. That is, the many conceptions or cognitions that a person has about himself; what Mead (1934), Hilgard (1949), Cooley (1956), Rogers (1959), and many others have identified as the self, or self concept.

Self concept includes all one's cognitions, conscious or unconscious, about one's physical image, intellectual and moral abilities and weaknesses, socio-economic position in society, national, regional, ethnic, racial and religious identity. In short, a person's total conception of himself is an organisation of all distinctive cognitions and the affective connotations of these cognitions if a full answer to the question, 'who am I?' was forthcoming. All these conceptions that a person has about himself are highly socialised ones, closer perhaps to Mead and Cooley's social conception of the self, and also possibly that of Berger and Luckman (1976), than the more personalised orientations of Rogers and Hilgard.

The ultimate purpose of one's total belief system, which includes one's values, is to maintain and enhance what McDougall (1926) has called 'the master of all sentiments of self regard'. This sentiment must be accorded a more central status within the total belief system than other attitudes and values because it has a self reflective quality about it that other values and attitudes do not possess. As

self conceptions are activated in virtually every situation a person may find himself in, one's performance in every situation is, therefore, more or less routinely judged for its bearing on self conceptions. Since the total belief system is a functionally interconnected system, a change in any part of it should affect behaviour.

Cognitive Change

One of the major reasons social psychologists have concentrated on attitude change is because they have assumed that the centrally located values are more resistant to change than attitudes. But Rokeach (1973) says that attitude changes are usually short-lived, and the reason for this is that the more central values underlying attitudes have been left intact.

Rokeach suggests, paradoxically, that under certain conditions values may be easier to change than attitudes. Values are less central than self conceptions but more central than attitudes. If a person's values are, in fact, standards employed to maintain and enhance self conceptions, then a contradiction between values and self conceptions can be most effortlessly resolved by changing the less central values. A value that contradicts self conception is more likely to undergo change than an attitude that is discrepant with persuasive communication or behaviour. A value should undergo enduring change if maintenance or enhancement of self conception is at stake. Having undergone change it should lead to systematic changes in other related cognitions within the belief system and should then culminate in behavioural change.

How, then is the belief system changed? All contemporary theories in social psychology would probably agree that a necessary prerequisite to cognitive change is the presence of some state of imbalance within the system. According to Rokeach there are three categories of theories of change; theories of personality and therapy, behavioural theories, and cognitive orientated theories. Only the last of these need concern us here.

Cognitive orientated theories in social psychology have not typically concerned themselves with changes in values because these variables are considered too complex or ill-defined. They have concentrated on attitudes assuming that these are susceptible to change as a result of situational and experimental variation, and also assuming that attitude change leads to behavioural change. As noted above, attitude change has typically been found to be short-lived.

Rokeach's theory is an attempt to bridge the gap between these distinct approaches by emphasising the missing link, (i.e. values), within a person's cognitive system that is essential to self conception on the one hand, and to attitudes and behaviour on the other.

In traditional approaches, any two cognitions that are asserted to be in an inconsistent relation, say an attitude and cognition about behaviour, are assumed to give rise to inconsistency reducing forces that should lead to change. In Rokeach's system a contradiction within the cognitive system may be assumed to have no psychological import unless it implicates self cognitions, in which case the inconsistency that generates a process of change is not between any two inconsistent cognitions, but between cognitions about oneself and cognitions about one's total performance. It is what one's perceived performance in a given situation implies about self conceptions that is crucial in determining whether a contradiction will be effectively experienced, and consequently, in determining whether it will lead to cognitive and behavioural change. In other words, does my engaging in this particular behaviour while holding this particular value imply anything about the sort of person I am? Does it imply I am incompetent or immoral in any way? If so, then my total performance, or an aspect of it, is logically contradictory to my conception of myself. Since people vary markedly in self conceptions, an inconsistency between any given two cognitions may be motivating for one person, but not for another. The kind of contradiction an artist might care about may be a matter of indifference to a housewife, soldier or businessman.

Certain contradictions within the cognitive system are more likely than others to implicate self conceptions and thus be more important

as determinants of cognitive and behavioural change. Contradictions involving values are especially likely to implicate self conceptions since values are employed as standards for evaluating oneself as well as others. The more a contradiction implicates self conceptions, the more it produces tension, and consequently, the more it should lead to efforts to reduce the tension. Rokeach sees this tension as an affective state which he calls self dissatisfaction. It is such an affective experience rather than a cognitive contradiction per se that he postulates to be the basic motivation for cognitive and behavioural change. Not all cognitive contradictions are necessarily experienced as a state of self dissatisfaction, but only those in which, and only to the extent that, self conception is implicated. Once a person experiences a state of self dissatisfaction he is motivated to reducing or eliminating it, although identifying the source of dissatisfaction may not be easy. A person defines himself as incompetent in a given situation to the extent that he sees his performance to be deficient in skill, ability, intelligence, ability to appraise reality correctly, or in ability to play roles successfully. A person sees himself as immoral to the extent that he sees himself as harming himself or others, or as deficient in exercising impulse control over his thoughts or feelings.

A person learns to evaluate his own performance and that of others for competence and morality by social comparison processes similar to that noted in previous sections and described by such as Kelly (1952), Festinger (1954), Deutsh and Gerard (1955), Thibault and Strickland (1956), and Jones and Gerard (1967). The end result of such comparison processes is an affective state ranging along a continuum from self satisfaction at one end to self dissatisfaction at the other. Cognitive and behavioural change begins when a social comparison process ends in some identifiable affective state of self dissatisfaction concerning competence or morality.

Thus, Rokeach's theory differs in the conception of consistency and in the fact he is concerned with values, rather than attitudes, which he maintains can be defined. For him, as long as values underlying a

changed attitude remain intact there is no compelling theoretical reason why a short term attitude change should lead to a behavioural change.

Clearly, however, the theory is only open to dispute by inference and cannot claim any more empirical support than other balance theories. While Rokeach claims his theory has a methodological advantage over other theories in that self dissatisfaction can be measured, while the state of inconsistency of other theories cannot be readily ascertained, this is not really very supportive of his ideas. Self dissatisfaction may be identifiable, but its cause is probably less easily distinguished. The value of the theory in this thesis is essentially in giving some kind of reasonable explanation of the place a key concept occupies within the psycholological make-up, in helping possibly to explain behavioural change through social comparison processes, and thus also providing a link with other aspects of the model noted in earlier sections.

## Conclusion

While the empirical work that has been done on values is limited, nevertheless, the concept is important for a number of reasons. Possibly most important is the position values hold within a person's make-up, determining both attitudes and behaviour. While the value/behavioural link is not straightforward, the possibility that values have a strong motivational component would seem to make their inclusion in this work desirable.

Also important is Rokeach's integration of values into a theoretical outline that gives explanations for behaviour, psychological functioning, and change, within a cognitive framework. This adds a useful theoretical perspective to those that have been considered earlier. It also takes us a little further forward in our model building. A typology of terminal values or a cluster of values, would seem to be a viable central focus which might also help explain an individual's

orientation to work. However, the range of typologies and criticism within the literature, noted earlier, would point to caution in this area, and certainly, it would seem unwise to firmly fix any typology before collecting some data. Nevertheless, outlining a tentative set of 'value orientations' does have benefit in that it gives some direction to the research, and it may be argued that there is some tentative support from the literature for values concerned with the three broad categories of, material aspects, relations with people aspects, and self development aspects, as dominant value clusters. An Aldefer ERG type classification rather than the more popular Bennett/ Goldthorpe categories would seem to be more appropriate here. Aldefer's classification, although concerned with needs, does seem to have some empirical support and as noted earlier, Rosenberg (1957) has argued that such a classification can apply equally to values. However, within these categorisations, it is unnecessary at this stage to go into greater detail, as the usefulness of these categories lies in them acting as a guide, or a framework, for the direction of the research, rather than indicating certainties.

Thus, the notion of values and their division into a threefold categorisation are the essential elements that this chapter contributes to the diagrammatic representation of the framework shown in Figure 2.8. The main change is that 'Value orientation' replaces 'valence' in the diagram. However, before any attempt is made to produce an integrated framework, it is necessary to finally consider the focus of the study, that of the manager, who is explored in the next chapter.

# CHAPTER 5

# MANAGERS

## Introduction

A superficial overview of the literature on managers and management leaves one with the feeling that the first decision to be made about the material is what to leave out of an assessment of the subject matter. A review of the literature on managerial work by Glover (1977), for instance, runs to over 400 pages. However, deeper consideration of the writings on managers shows that the real problem is not what to leave out of a vast literature, but, in fact, what has relevance and can be at all reasonably included. A lot of the empirical work on managers is concerned with trying to establish what managers actually do.

At the socio/psychological level the literature on managers has large normative elements based on assumptions that managers should be dynamic, efficient, ambitious, quick thinking power seekers with leadership qualities that reflect a cross between Montgomery and the pied piper. As Mintzberg (1973), and Kotter (1982) point out, much of the work is prescriptive, often with Fayol's (1916) five processes of management (planning, organising, commanding, coordinating and controlling) still having considerable influence on current writings, (such as Coventry, 1977). Moreover, at a broader level, while much has been written about the ideology of management and several 'grand' theories have been offered explaining management's position within a particular class structure, the amount of empirical work that has been done on the sociological aspects of management and their structural position within the world of work is quite small.

Clearly, although not specifically about managers, the literature already considered on motivation and work orientation, will have

applicability to managers, and related work, for instance, on the professions is also of value to this area. However, it would seem to be far from extensive, and as Glover points out, and as noted in the Introduction to the thesis, the motivations and activities of managerial level job holders have been explored only to a limited extent. This is not to give the impression that the empirical work on managers is almost non-existent. There have been quite extensive studies, some of which are noted below, and others which are not directly relevant here, from such as the study of Haire, Ghisseli, and Gordon (1967) into managerial pay, to that of Poole, Mansfield, Blyton, and Frost's (1981) investigation into a range of managerial attitudes. But as far as managerial work activity and reactions to work are concerned, Mintzberg (1973), Stewart (1976), and more recently Kotter (1982) continue to bemoan the lack of empirical investigations of managers, which are certainly much less in number than studies of their subordinates.

What the chapter tries to do is to consider the literature that there is on those aspects of management that are related to the main themes of the thesis, and discusses one or two broader aspects that put the notion of managers in general perspective. But there is also an element of 'piecing together' derived from the work done on 'lower level' participants in organisations which, by implication, may give some clues to the nature of managers' reactions and activity. But first let us begin in classical tradition by defining the concept.

## Definition

'Manager' like many notions in the world of industrial and organisational research is a vague concept. It has similarities with trying to define 'work'; one knows that work exists, and it is possible to point to some obvious and well accepted examples, but apart from these, the concept is a vague, jelly like notion that seems to encompass peripheral elements depending on the argument of a particular writer. As Stewart (1967) notes, the word 'manager' is used in many

different ways, and Glover maintains that the word 'management' can never be more than a rather vague generic term.

A common definition of a manager is one who is responsible for getting things done through other people, but this cuts out many functional specialists and 'junior' managers who do not have direct staff responsibilities. This is too restrictive and most would include not only those whose function consists, in part, of exercising authority over others, but also those who offer expertise and information to those exercising authority, who are employed at similar levels in work organisations, and enjoy similar status and rewards. Stewart, similarly, sees the word manager covering all those above a certain level in the hierarchy, usually those above foreman level on the works side and those above the first level of supervision in the offices.

An elementary classification would see most managers in a middle stratum between, at the one end, the directors or policy makers, those ultimately responsible for the long term future and direction that a unit takes, and at the other, the workforce or lower level participants. In this classification, middle managers are mainly responsible for seeing that the directions of the policy makers are carried out, and are thus concerned with organising and directing lower level participants and are also responsible for obtaining, generating, classifying and presenting information and ideas to the policy makers. But as Glover points out, this is merely a generalised description of what people are expected to do and the reality is infinitely more fluid and complex with different positions, even when they are at the same level of the hierarchy, providing different kinds of opportunity in different units and types of unit at different points in time.

Moreover, in addition to this complexity, as Harbison and Myers (1959) argue, management has also been examined from different viewpoints and they note three possible approaches. First, management could be seen as an economic resource performing various technical functions consisting of organising and administering resources. Second, it could be seen as a system of authority through which policy is translated

into the execution of tasks. Third, it could be seen as an elite social grouping which acts both as an economic resource and maintains the associated system of authority. Glover notes that some writers have idealised these functions by presenting depictions of the activities that top postholders ought, in theory, to do, and Child (1969) has argued they have tended to confuse the technical aspects of their thinking with their legitimatory purposes. Perhaps the most predominant emphasis, especially in political and sociological writings, is on managers as upholders of a particular system of authority and social relationships. Nevertheless, it is perhaps worth noting here that the one aspect that seems to emerge from an overview of the literature is the diversity of those included under the manager category rather than their cohesiveness, and the danger of drawing general conclusions about managers, their motivations and purpose in the organisation, from the very vague definitions and categorisations of 'manager' that are on offer.

## Studies of Managers

One of the reasons why the definitions of manager are so broad, and even then do not have wide acceptability, is possibly because managerial work is so imperfectly understood. Clearly, if just trying to establish what managers do is difficult, trying to understand why they do it would seem, at the very least, to be problematic. Moreover, the available literature does not seem to provide too much help in getting to grips with the subject. Glover, in considering studies of managerial behaviour, argues that their focus has been narrow, and comprehensive pictures of managers' motives and activities, on the whole, have not been provided. Indeed, Stewart (1967) has argued that much textbook management thinking is normative, which would imply that many personnel and other management techniques may be built on shaky foundations.

Stewart (1976) provides an outline of the managerial literature, which while concentrating on managerial work also highlights studies of

other aspects of managers. Some of her categorisations are similar to those of Mintzberg (1973), particularly her categorisations of studies of what managers do. She divides these studies into four groups; activities, political studies, roles, and critical incidents. The first of these, the activites approach, is similar to Mintzberg's work activity school concerned with analysing the work activities of managers, and the proportion of time spent in different ways. The diary is the most typical method used by this school, of which Carlson (1951) and Stewart's (1967) study are most well known. Mintzberg also places the studies of Guest (1956) and Kelly (1964) in this category where the diary method was also used, but the data was recorded by means of the researcher rather than the manager himself. Stewart's later studies (1976 and 1982) used a combination of techniques, but are along similar lines.

Stewart's 'political' category is similar to Mintzberg's leader power school, and both cite Dalton (1959) as an example. Sayles (1964) work could also be included here. The studies indicated the political nature of managerial work in a manager's efforts to influence others especially his peers. Stewart sees the contribution of this school in highlighting the importance of all kinds of relationship in determing managerial effectiveness. It also showed that apart from the classical school's emphasis on motivating staff, a range of social skills are required by a manager. However, the anthropological approach of the school, involving intensive case studies, limits its contribution in that it is difficult to test the general applicability of the observations.

Mintzberg places his own work (1973) in the work activity school noted earlier. However, Stewart sees the 'role' school as separate, of which Mintzberg's work is cited as the main study. Mintzberg observed five chief executives and identified ten roles divided into three main groups, interpersonal, information and decision making. Mintzberg's contribution lay in providing a very different conceptualisation of managerial work to that of the classical school stemming from Fayol. However, as Stewart notes, Mintzberg's role categorisations are

limited in that they do not apply in all managerial jobs, it is difficult to allocate some activities to his categories, and some of his roles, especially that of leader, are too broad to be of practical use. Nevertheless, the concept of role is one that other writers have found useful and the approach of such as Hunt (1979) might also be placed in this category.

The critical incident approach, identified by Stewart, consists of asking for reports of what people did that were particularly effective or ineffective in contributing to good performance. Flanagan (1954) is seen as originally developing this method. Is is not an approach that Mintzberg identifies, but both he and Stewart highlight the studies done on leadership beaviour and effectiveness. The methods used to look at leadership vary widely, and Homans (1950), Fleishman (1953), Sayles (1964), Hodgson Levinson and Zaleznik (1965), Fiedler (1967), and Campbell (1970) are included here. Stewart argues that it was Fiedler who overcame the main criticism of the work in this area in that it was too simplified to be of much operational use and did not distinguish between the demands of different jobs. Fiedler's work took a contingency approach which examined the effects of situational differences on effective leadership style.

Both writers mention the decision making approach of which the work of March and Simon (1958) is a typical example. In addition, Mintzberg's 'great man' school should also be mentioned. He sees two kinds of approach here. Those that analyse managers as groups, such as the work of Newcomer (1955), and Lewis and Stewart (1958). Macoby's (1976) work might also be included here. The other group consists of case studies of individual managers, such as that of Sloan (1963), and Kotter (1982), which Vinnicombe (1984) would also place in this category.

In addition to these investigations, several of the studies cited in Chapter 2 on motivation were concerned with managers, such as those of McClelland (1953 & 1963), Herzberg (1959) and Aldefer (1969). As the major content theories have already been reviewed they will not be

detailed further, although it is worth noting, that in addition there have been a number of other content type studies of manager motivation which might be seen as slightly outside the mainstream, such as that of Whyte (1955) which looked at USA executives who were hard working. The executives put this diligence down to five motives; self expression, wanting to contribute, wanting responsibility, desire for prestige and fear. Pressure to conform was also emphasised.

Also of relevance here are the attempts that have been made to broaden the understanding of manager motivation through taking an orientation to work perspective. It is perhaps worth recalling Blackburn and Mann's (1979) comments that the existence of orientation implies that employees have preferences which are substantially independent of immediate work experience, extending over different types of situation and relatively stable for a significant period. Orientations underly choice rather than arise in the act of choosing and are thus not closely related to the specific situation. However, by far the majority of studies of work orientation have been conducted with blue collar workers and much of the material on orientations, as it relates to managers, has been inferred from research that has not had work orientation as its prime focus.

One area of relevance to the orientation perspective is that of cross cultural studies which show that there are fairly systematic cross cultural differences in the orientations of managerial level people. Hofstede (1981), for example, found the desires and practices of German middle level job holders to be different from those of British ones. The latter emphasised achievement and challenge in their work and benevolence towards others more highly than did the Germans who stressed clear objectives, orderliness, and having authority over others. Bamber and Glover (1973) echoed the British side of these findings from data obtained from 541 middle and senior level job holders employed mainly in BSC. 'Interesting and challenging work' and 'specifically managerial' (which refer to the exercise of managerial and professional skills) sources of job satisfaction were the most important items reported, with the former more important.

'Relationships with other people' constituted their third main source of satisfaction. The main single sources of dissatisfaction concerned 'authority, control and status'. Graves (1972) in a limited study of French and English managers concluded that individual responsibility and autonomy were more highly valued in England.

In addition to the cross cultural studies, a number of other domestic studies have shed light on managerial work orientation. Glover, for instance, maintains that there are a lot of data, although he does not specify it, to suggest that middle level technical specialists are relatively instrumental in terms of their orientations to work. Job satisfaction, for instance, seems to stem more often from doing interesting (technical) work than from the exercise of the managerial prerogative, and the families of such people and sometimes their leisure activities appear to be more important to them than their work and careers.

Lansbury (1974) found a tendency for managers in a management services department to pursue work interests outside work. But Sofer's (1970) study of technical managers 35-39 years old, found that technical specialists were more likely than line managers to draw psychological distinctions between work and leisure activities. Glover maintains that a closer look at the data concerning these two studies reveals that they complement each other, and broadly, more highly qualified, technical and similar kinds of specialist will be more likely to mix their work and leisure activities than older, less highly qualified ones. Line managers appear as if they are members of a different breed in some respects, doing a different kind of job and having rather different backgrounds and conceptions of work and other parts of their lives.

Williams and Guest (1971) suggested that British middle class employees were becoming less concerned with work and more home and leisure centred, while Lansbury and others suggested that a wide variety of orientations to work may coexist amongst managerial level employees. Career opportunities, actual and perceived level and type

of education received, the type of work done, regional differences and age appear to be among the more important variables. Bamber and Glover (1971) found that concern with job security was most pronounced amongst their (senior and middle) respondents aged 35 to 50, those most likely to have heavy family commitments.

Overall, however, Glover concludes that most of the studies relevant to orientations are inadequate for three main reasons. There has been a failure to compare in a systematic way the orientations to work of different kinds of manager. Also there has been little attention paid to the effect of the detailed nature and output of work upon orientations towards work, which the blue collar studies have indicated may be an important relationship. Finally, the historical perspective has been almost totally neglected, so little is known of the evolution and attitudes of managerial people towards their authority and work. Overall, the literature's weaknesses are its fragmentation and superficiality.

The notion of fragmentation is, perhaps, the major criticism that could be levelled at the literature overall. Of the different approaches noted so far, only the activity school could be seen as containing a number of linked studies, using similar research methods and incorporating previous findings into subsequent research. Indeed, the categorisations outlined above are far from distinct and it is possible both to place authors in different areas, as with Sayles (1964) above, and to use other categorisations. Indeed, although not wholly concerned with managers but still incorporating the work on managers, the attempts to categorise the literature in terms of approaches adopted during various historical periods, are, perhaps, more well known, than those above. A number of writers, (such as Levinson, 1973, and Wynn, 1980) cite the fairly common typology of economic man and Taylorism, social man and Mayo in the 1930s, and self actualising man, which in relation to work, has been used by a number of writers, and underlies what many others (for instance, Silverman, 1971) call the human relations school.

These categorisations are too general to be of any great use, but perhaps of more interest is Levinson's (1973) suggestion of a fourth, current phase, which he calls that of psychological man. He criticises all the previous approaches for being based on reward/punishment psychology, where a person's needs are seen normatively, as broad categories of generalised need, such as achievement and self actualisation, with little differentiation among different people and different circumstances. Psychological man is a concept based on a comprehensive theory of personality. Stemming largely from psychoanalytical conceptions, Levinson sees it as viewing man as a complex, unfolding, maturing organism who passes through physiological and psychological stages of development. Man evolves an ego ideal to which he strives, and the approach sees work as a mode of mastery of self and environment. But it not only focuses on man alone, or on the organisation alone, but with the man/organisation relationship.

Interestingly, Levinson argues that the major theorists of this point of view are Zaleznik (1966) Jaques (1970), and himself, although both Jaques, concerned with superior/subordinate relationships, and Zaleznik with leaders and decision making, could be seen as examples of very different approaches. Nevertheless, even if not necessarily the dominant approach of the era, and recent work on managers, such as Stewart (1982) and Kotter (1982) indicate differing trends, the notion of psychological man is, perhaps an important approach. Schein (1978), particularly, with his notion of self concept career anchors and life stages, would seem to fit into this approach. But also other works, such as that of Hunt (1979), which while taking, as with Schein a more social/psychological approach, rather than psychoanalytical one, is still concerned with the life cycle stages managers go through, and could also be seen to fit into this trend.

Thus, in summary, the manager literature can be seen to contain a number of different perspectives, although few of these are well integrated. The 'classical' school with its roots in Fayol is still influential today, especially in the more 'popular' managerial literature. However, the approaches considered to be of most relevance here

are the six categories noted by Stewart and Mintzberg; those of the 'activity' school, 'political', 'role', 'leadership', 'critical incident' and 'decision making' approaches. In addition, the 'content motivation school', 'work orientation' studies and the 'psychological man' approach of Levinson are also seen to be helpful classifications and pertinent to the study.

## A Broader Perspective

Before any further comment is passed on these approaches, however, it is important to broaden the consideration of the manager and his work environment. Manager motivation, it might be maintained, cannot be understood without at least a brief consideration of the wider organisational context of the manager's environment. For instance, Glover argues that an understanding of cultural responses is important and needed because they help to structure careers, attitudes to work, and affect the ways in which work is done. Indeed, according to Riesman (1950) the question of the meaning of work and how it is experienced is primarily a cultural problem. In a very real sense the individual learns what to want from work and what meaning it is to have in his life. Despite this however, culture is a complicated word, although it is taken by Glover to refer to systematically repeated influences or patterns of thought and action, and its use normally involves consideration of group values and assumptions, particularly those where practical effects are relatively powerful. Nevertheless, including cultural factors is less than straightforward and they are often neglected by students of organisational behaviour and other social scientists, possibly because they do not permit easy generalisations.

One aspect that deserves consideration is that of control and individual freedom within an organisation. Managers, in general, are considered to enjoy greater freedom than lower level participants, but as it might be argued that a fundamental characteristic of any organisation is the attempt to create order out of the diverse and possibly conflicting interests of its members, it is perhaps worth briefly considering the more general nature of control in organisations.

Creating order will generally be pursued through controlling employees as well as rewarding them, and many writers, such as Tannenbaum (1968), Dalton (1971), and Smith (1978), see some form of control in organisations as inevitable. These two, control and reward, would seem to be closely related as Etzioni's (1964) analysis of control indicates. He sees the central question of organisations, derived from Weber, as how to control organisational participants so as to maximise effectiveness and efficiency and minimise the unhappiness this need to control produces. He argues that norms are set within organisations which need to be enforced. There are rules and regulations, orders which have to be obeyed if the organisation is to function effectively. To the extent that the needs of dominant organisational participants and those of other individuals are compatible then little control is necessary. But such meshing of needs is rarely complete and the success of an organisation is largely dependent on the extent to which control of its participants is maintained. In most organisations most of the time participants cannot be relied on to carry out their assignments voluntarily. Where they do not, control alone in the form of physical coercion cannot be used. Consequently, most organisations have a formally structured distribution of rewards to support compliance with norms, regulations and orders.

Thus, there would seem to be a close relationship between organisational control and the rewards found within the organisation. It would not seem too implausible to surmise from this that both aspects will have an important impact on motivation to work and other aspects of organisational behaviour.

Dalton and Lawrence (1971) argue, that in some sense each person can be viewed as acting, reacting and testing to find ways to obtain greater control over his own environment or to maintain the control he has. It is quite possible that rather than comply with organisational control, an individual may resist, if there is the threat of a reduction in the amount of control an individual has.

Whether an individual resists or complies, will depend on a number of factors, but possibly one of the most important in relation to the kind of control he meets in an organisation is the way he perceives and is willing to comply with such control. In other words, the value the individual places on work autonomy. Campbell, quoted in Glen (1975), describes this as something which includes responsibility and independence, but which is essentially an orientation towards rules and freedom of individual initiative. In view of the importance of control within organisations, this autonomy value, as it might be called, would seem to be of particular importance to trying to explain an individual's work behaviour.

However, such a view must be seen in relation to the kind of job and the hierarchical level at which it is performed, which will carry with it particular restrictions and control. Lower level jobs are generally seen to have fewer discretionary elements than those higher up the occupational hierarchy, whatever desires individuals may have for autonomy. Such differences in the prescriptive and discretionarry elements of a job may have considerable consequences for the individual.

According to Fox (1974), whereas most of those in lower occupational strata, with their relatively highly prescribed, low discretion jobs, yielding little intrinsic meaning, feel constrained to adapt to their situation by focussing on the instrumental rewards, those in the higher strata are privileged to be able to respond to an altogether deeper conception which sees work among the central sources of significance in life. The argument is that their job situation offers them the potential that work can promote the enlargement and fulfilment of their own personality. Those in higher status occupations are fortunate in that so far as their own roles are concerned, instrumentalism and self actualisation tend to be compatible rather mutually exclusive, as they are, according to Fox, in relation to the majority of the rank and file.

The argument can be taken further. Freedom is often considered to be an important value in our own society and Lukes (1973) argues that the

notions of autonomy and self development are among those central to this concept. He maintains that one part of the answer to the question, 'when is a person free?', is that he is free in so far as his actions result from decisions and choices which he makes as a free agent rather than as the instrument or object of another's will. Men make themselves through their own choices - by taking decisions and accepting responsibility for what they choose. Their autonomy and growth consist precisely in this self determined deciding and choosing. A work situation which offers no, or only the most trivial opportunities for choice, decision and the acceptance of responsibility, is one that therefore offers no opportunities for growth.

A further part of the answer is that a person is free when he is able to realise his potentialities, that is, to make out of himself the best of what he has in him to be. It is argued that the productive system allocates these freedoms and opportunities with profound inequality.

Under this argument, then, the privilege that many at a higher occupation level are considered to enjoy, is that within an economic system designed largely to pursue only the instrumental returns from work, they have also the opportunity to enjoy the intrinsic returns. But, of course, they may not take the opportunity. Among lawyers, managers and academics also, it is plausible that there are those who give cash almost exclusive priority. This would illustrate the point made by Goldthorpe and his colleagues (1968) that no direct and immediate relationship exists between the objective nature of a job situation and the orientations and attitudes of its occupant in the sense that the former predictably determines the latter. But, nevertheless, the argument probably still holds that most people at higher occupational levels value the intrinsic returns from work and have come to expect them, just as most people at lower levels learn to do without them.

There is a further consequence of this. The opportunity for enjoying intrinsic rewards, it seems, has given rise to widely held assumptions about the overall approach of managers to work. It is often main-

tained (for instance by Fox, 1974) that among professionals, middle and top managers and administrators, while there is a keen concern with extrinsic rewards, many among them, nevertheless, invest a personal involvement and identification with their work which permits no sharp segmentalised cut-off from family, leisure and other dimensions of human existence. It is an assumption, however, that tends to give rise to very different explanations. On the one hand, there are those who argue, (for instance, Johnson 1976, and discussed by Poole et al, 1981) that the reason for such personal involvement stems from the fact that managers and experts are involved in the deprivations of those who they manage, or those whose jobs they design and influence. Thus they are highly important organisationally, who must be reliable and trustworthy, and whose job design and privileges go a long way to maintaining commitment. Under this argument the content of managers and experts jobs can only be seen in the context of certain class interests and philosophies which define organisational efficiency in terms of maximising control over, and reducing the discretion of, the majority of organisational members, and bestowing this control and expertise on the reliable members of the organisation.

On the other hand, there is the argument that while management have personal involvement and identification, this is not something that need necessarily be denied to other participants. To some extent, Goldthorpe and the doubt he cast on the notion of embourgeoisement of the upper working class has diminished the idea that 'working class' participants might take on the same work values as middle class, managerial workers. But, nevertheless, the underlying notions of job enrichment and job rotation, and especially the thinking behind the human relations school's approach implies that such personal involvement is a possibility at all levels depending on how a job is structured. The argument here is that personal involvement and control are not consequences of a wider class structure, but of a particular work environment which prevents such personal involvement only to the extent that such things as the kind of technology employed might prevent it, and even here, as with motor manufacturing at Volvo, there may be much more scope than is realised.

However, there a number of problems with these analyses. With regard to the first argument above, it would be a mistake to suppose that upper level jobs are necessarily consciously designed to embody these notions. Undoubtedly a number of managers are able to design their own jobs, and while they may not necessarily be conscious of 'self development' doctrines they may be likely, nevertheless, to allocate themselves a generous measure of autonomy and discretion. But probably most upper level jobs are designed simply because it is believed by their designers that the work concerned could not be performed effectively if the intrinsically significant features were removed from the job definition. It might be argued that an employer may employ people in jobs which have a great deal of discretion not because he wishes to offer these groups an intrinsic meaning which he is withholding from the rank and file, but simply that for the same instrumental purpose that prompts him to higher low level employees; he decides he needs a few high discretion employees to plan, control, supervise and coordinate them. For those who occupy these roles, it may be their good luck which secures them their intrinsic satisfaction rather than the owners intention.

With regard to the second argument, the analysis has been much criticised for its normative assumptions and for not being based on the 'realities' of industrial life. Indeed, to some extent, criticisms of research into management made in academic circles, has largely stemmed from the assumptions adopted by some management researchers', based on a human relations school orientation of harmony and cooperation, and also having a particular interpretation of who the research is designed to help.. (For instance, see Whitley, 1977, for further discussion).

Even so, perhaps the biggest problem and drawback with these two explanations of management involvement and commitment is the very limited empirical support there is for either. For instance, the whole question of just how far the structure of their job activity does imprint itself on managers has received scant attention. How many managers consider that 90% of their time at home

is wasted on non-productive activity, as one told Young and Willmott (1973), and how far managers in reality are 'just doing a job' (nomatter what apparent psychic involvement they display to their bosses), remain open questions.

However, solutions to the problem are hardly straightforward. Clearly, of course, there has been some empirical work done on manager motivation, involvement and work meaning, which was cited earlier. But as Fox notes, the personal meanings of managers are not only difficult to generalise about, they are also difficult to discover by empirical investigation. He maintains that the reason for this is that while some of the meanings an individual draws from work may be apparant to him or her, others may not. The former can be called manifest meanings, although even here, he argues, it is one of the difficulties of empirical research that the individual is not always reliable in reporting his own motivations, and what the individual believes or likes to believe about the place of work in his life does not necessarily tally with the facts. The difficulties are compounded when we turn to latent meanings; those which the individual remains wholly or largely unaware of until he is deprived of them. Because they are taken for granted the individual is rarely in a position to report latent meanings and assess their relative importance in his life.

Fox offers a list of these possible meanings, but in view of his comments above, argues that it is impossible to know how significant these meanings are to individuals, or their relative importance. Nevertheless, although we may be unaware of the priority given to any of these meanings, the list is worth noting. The first meaning is that work provides opportunities for relating to society and viewing oneself as making a useful contribution by providing goods and services. Secondly, work may provide for sociability needs by providing the individual with opportunities for interaction with others. Thirdly, work enables the individual to sustain status and self respect. The job is a key element in wider social status. With a few exceptions a man's occupation is a more reliable single guide to his

place in society's hierarchy of prestige than any other indicator. There is ample evidence of the importance for self esteem of simply having a job and of the shock, guilt, bitterness and loss of confidence that can follow its loss, particularly for managers. Additionally, Fox sees managers as having a self actualisation and achievement ethic.

Fourthly, and tied in with the item above is the significance of work in terms of personal identity. Occupational roles provide opportunities to define oneself to oneself and to others. The fifth item which Fox argues is more important for many people than it may at first seem is that work roles structure the passage of time. Sixthly, and connected to the above, is that meaningful activity helps to distract the individual from private worries, fears, disappointments, depression and emotional disturbance. Loneliness, isolation and fear of death are also known to lend work this kind of meaning, but it also gives a general meaning to living. Finally, a significant factor about work is its importance in providing scope for the satisfaction of achievement usually defined in terms of a struggle towards high standards that are recognised as such by some valued group large or small.

## Organisational Contraction

Different work meanings may, of course, assume a greater or lesser importance for an individual depending on any environmental changes he experiences. One important environmental condition that particularly relates to managers in this research study, and may well confront individuals, in quite a stark way, with considering work meanings and the consequence of job loss, is that of organisational contraction. As was noted in the Introduction, however, there has been very little research on contracting organisations. Little, also, seems to have been written about the subject. There are quite a number of fleeting comments by authors such as Salaman (1974) writing about organisations in general, along the lines that decline in organisations is important both to the wider society and to employees of such organisations, and

that psychological tension is a possibility in organisations of this nature. However, only a handful seem to have considered the subject in any depth, such as Levine (1978), Cyert (1978) and Whetton (1980, 1980a). All, though, acknowledge the importance of the subject. Whetton argues that managing declining organisations, and coping with the consequences of retrenchment, are pressing societal problems. Many institutions both here and abroad, business organisations, central and local government, and services such as education and health, are facing decline and cutback on an unprecedented scale since the War, and the problems that this poses are considerable. Significant downward shifts in organisational size and profitability may mean that two major incentives, particularly pertinent to managers, pay and promotion, are likely to be severely restricted with a possible detrimental consequence for motivation, decision making and cooperation. Unemployment will affect family life, but more pertinent here, is the likelihood that the morale of the remaining employees will deteriorate as they are subjected to an uncertain future and smaller and smaller resource pools. Stress and increased interpersonal conflict are likely in such circumstances.

Despite this, there is little material on the causes of decline, responses to decline, or the effects of decline on the organisation, although there is an extensive bibliography on organisational growth. A number of weaknesses and gaps in the literature on managers were noted earlier, but in relation to organisational contraction, and its affect on managerial job holders, the literature is meagre, and it is an area that remains largely uninvestigated.

## Conclusion

Thus, the study of the motivations, meanings and work activity of managers is, to a large extent, still in its infancy. Like the general area of motivation, the area of manager motivation remains problematic, but with particular difficulties in defining managers and obtaining research access to them. This is not to argue, as noted before, that scientific studies of managers are completely lacking. They are not, but there are considerable gaps in the cumulative

knowledge of managerial activity, and in the meanings managers hold, which are often filled with the speculative and the normative. Moreover, much of the empirical work that has been done is somewhat diverse and fragmented, and as was outlined at the beginning of the chapter, a number of very different approaches have been taken in looking at managers.

One reason for the different perspectives taken, is, as Stewart (1976) notes, related to the fact that management is much less tidy, less organised and less easily defined, than is traditionally presented by management writers, or in job descriptions. Thus, the relatively limited empirical base and fragmentation of the literature can be explained in that it is hard to study the complex and diverse environment of managers. But to a lesser extent, it may also stem from the lack of clear traditions and integration of many of the approaches, and this itself may stem from the lack of a comprehensive overview and clarification of the managerial approaches on offer. Thus, the seeming lack of strong direction of research may be a product of the lack of clear benchmarks and guidelines, as well as a product of the difficult nature of the subject matter. Reviews of such as Glover (1977) notwithstanding, if ever the time was ripe for a comprehensive overview of the manager literature, this would seem to be it.

These criticisms of the literature, however, do not mean that the researcher is left without bearings and with no research direction. It is true, as with the reviews of work motivation and work orientation, previously, with regard to the literature on managers, again there would seem to be few clear concepts or ralationships between variables that should be uncritically, or obviously taken to direct a new investigation. Nevertheless, this is not a completely disasterous position. Although there are no obvious aspects, there are a number of important variables that can, and have been singled out from the literature overall, as being possibly useful in directing the research, such as the concepts of expectancy and valence from process motivation theory. From the review of the literature on managers above, the notion of autonomy at work would also seem to be a factor

of importance and deserve some consideration in the study of managers. Even so, the important point about the literature, is that while it might be 'better' to have strong research traditions into which new work might more easily slot, in the absence for the most part of that situation, the literature, nevertheless, sets important parameters. The researcher can, of course, be guided by knowing the limitations of studies; of knowing what is not so relevant or valuable, and it is for this reason, in the absence of clear trends, that the literature is important and can be used to guide this research. To argue, as has been done earlier, that work motivation theories are to narrow, that work orientation approaches too vague, and that the managerial literature is fragmented, is a progression, if this should lead to a more comprehensive approach.

In this case, only a limited number of concepts have been taken from the literature. Nevertheless, these can be combined to produce a general framework which can be used to investigate managers in contracting organisations. This, while not having the precision of a model, is nevertheless, broad enough to avoid the criticism of narrowness that has been levelled at cognitive motivation theory, yet detailed enough, especially with the central focus on the concept of values, to give direction to the research investigation.

The section that follows pulls together the important strands from the various chapters, to produce this directing framework.

## Composite Framework

The framework that has been produced here is a broad framework, derived from the literature, and which is intended to guide the empirical study. The framework combines the ideas that emerge from the chapter on work motivation, with the notions of work orientation, control and uncertainty raised in the other chapters.

The framework starts with, and emphasises, the individual, who approaches work with a mental orientation based essentially on values, but which are related to drives, wants and needs. An aspect of this orientation, but given particular weight here, is the emphasis the individual places on autonomy. Clearly, this mental orientation, to some extent, will determine what kind of employment an individual seeks in the first place (although not entirely, as with a worker in an area where work is scarce). The orientation will also be modified or changed while the individual is at work, not only by changing home circumstances, but also by changes in the organisation itself.

The individual will be affected by a number of factors at work, but two are particularly important. First, the rewards offered, either extrinsic or intrinsic, and second, and related to them, will be the perceptions the individual has of the kind of control he is subjected to within the organisation. Thus, on the one hand, the values the individual brings to work in conjunction with the rewards on offer will give rise to a perception of the attractiveness, or valence, of possible outcomes. In addition, the individual will make an assessment of the behaviour that will be needed to achieve certain outcomes, which will be called expectancy. On the other hand, as well as these assessments of valence and expectancy, the individual will also have some notion of acceptability of the methods of control and work norms established, related ot the notion of autonomy above.

Valence, expectancy and acceptability will be assessed by the individual in relation to what he perceives the rewards are, and the efforts of others to be. Such an assessment in relation to comparison others

will give rise, either to a feeling of equity if the individual perceives his inputs and rewards are comparable with others, or inequity, if not. This will give rise to a decision whether to engage and continue to engage in performing a particular task, whether to try to perform another task which may be perceived to be rewarding, whether to engage in other activity (e.g. disruptive or dysfunctional behaviour) whether to stop work altogether, or whether to leave the organisation.

These are considered to be the main possible behaviours at work. However, the choice between these four 'gross' behaviours will depend not only on the factors that have been noted so far, but will also be determined by two other aspects. The first is whether or not the individual believes he/she has control over his or her environment; whether he perceives he can influence, for instance, the rewards or tasks he is given, will clearly affect the possible choice of behaviours he will make. The second, which is not related to the first, is the uncertainty surrounding the organisation's future. This is particularly related to contracting organisations. Whether the individual thinks the firm has a viable economic future will have an impact on his behaviour.

Having made a decision to work on a task, the individual's performance will then depend on a number of factors. These need not be specified, but should be acknowledged and will be called other determinants. As a result of performance there will be positive or negative outcomes which will have a feedback effect, influencing both 'felt' equity and expectancy. For instance, a manager's unsuccessful attempts to obtain promotion (outcome) will influence his expectancy of the kind of behaviour that he now believes is appropriate to achieve the desired outcome. If he fails to get promoted, while colleagues are successful, he will possibly alter his criteria for assessing felt equity, which may affect future behaviour. The framework can be depicted diagrammatically and is shown in figure 5.1.

COMPOSITE FRAMEWORK

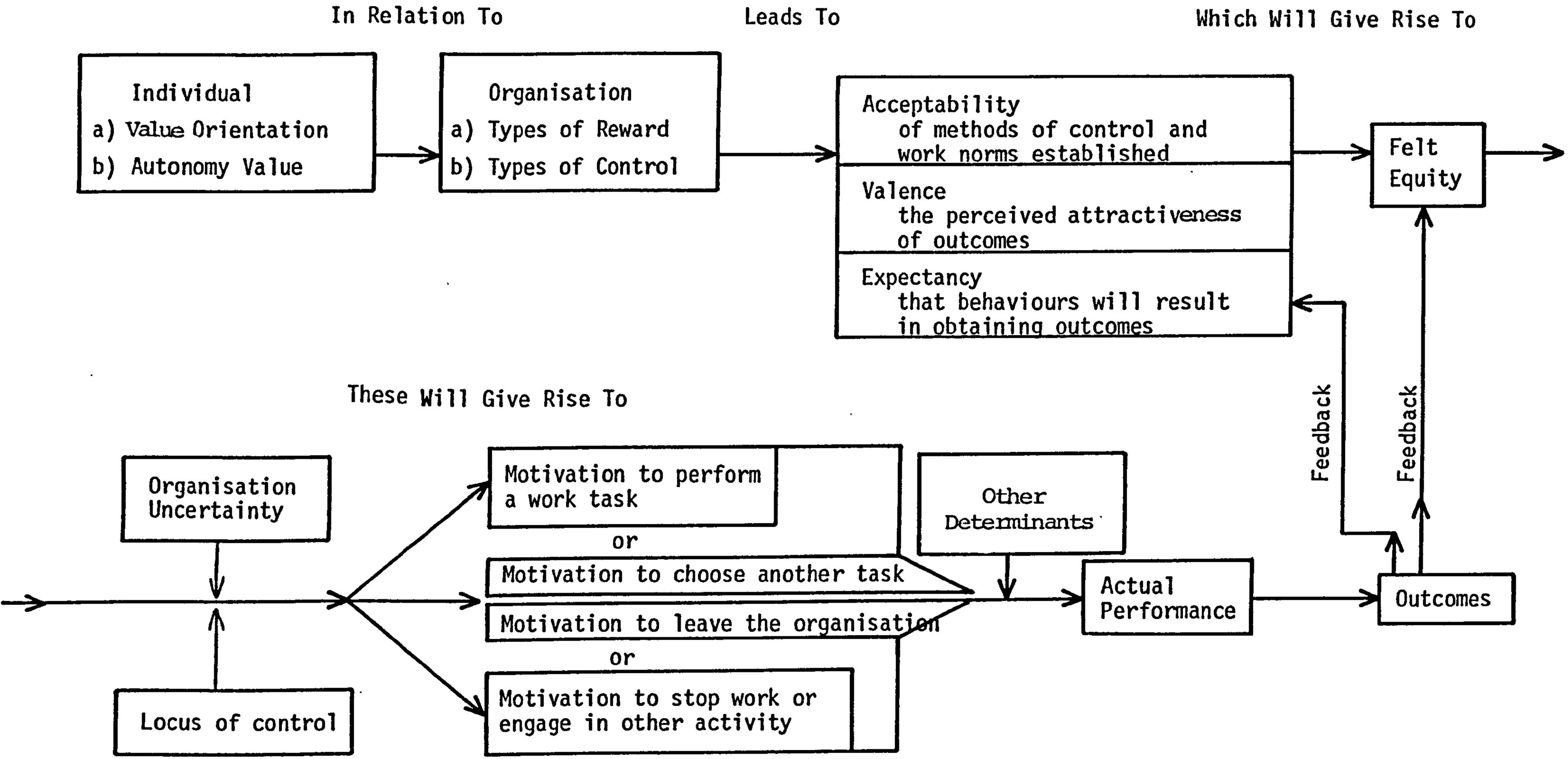



Figure 5.1

# SECTION 2

# PRIMARY RESEARCH

## Methodology

# CHAPTER 6

# PILOT STUDY AND CONCLUSIONS

## Methodology

The initial intention was to use the framework outlined in the previous chapter to investigate managerial motivation. It was intended to look at managerial motivation within a particular environment, that of organisations in a state of contraction. As the author was sympathetic to research and the pursuit of science as a positivistic notion, the aim, within this contracting environment, was to find support for the framework through a positivistic investigation.

For many reasons, however, pursuing the research in a positivistic way was not possible. These reasons included; the difficulty of establishing in the first place a population of contracting organisations; the difficulty in obtaining a random sample of firms to participate, problems of access, the sensitivity of the subject, which restricted the kind of data collection methods that were appropriate, and the difficulties of recording the data. Moreover, although carefully developed, the framework was appropriate essentially to growing organisations, and was derived from a literature based on growth assumptions. It was therefore possible that its applicability to contracting organisations might not be entirely justified.

It was decided, in view of the above problems, to conduct the research in two stages. The first stage was a pilot study using the framework to guide the researcher in studying motivation among managers in contracting organisations. As a result of this, a second, more detailed, study was undertaken, looking at the notion of self concept using Kelly's (1955) Repertory Grid technique. The pilot study indicated that a manager's self concept was of particular importance in

explaining why managers worked hard in the contracting environment they found themselves. The main study pursued the notion of self further, using more quantitative techniques than previously.

## Pilot Study

Three manufacturing companies, Chubb Ltd, Chloride Ltd, and Massey-Ferguson Ltd, participated in the pilot study. These three companies, like the two companies in the main study (Sandvik Ltd, and Lansing Bagnall Ltd) were drawn from different industries, (Chubb, locks: Chloride, batteries; Massey-Ferguson, agricultural equipment). Nevertheless, all five companies had a number of factors in common, which were used as a basis for selecting the companies for investigation. These were;

- they were manufacturing companies
- they were large, i.e. over 1,000 employees
- they were considered to be 'leading' companies in their industry
- they were profitable/'successful' until the mid to late 1970s
- they had all suffered recent downturns in profit
- they had experienced major redundancies in the 6 months prior to research being conducted in the companies
- they could give no guarantees against further redundancies

Thus, contraction was seen as a reduction in the size of the company in terms of personnel. The situation at Massey-Ferguson provides a typical example of the kind of contraction experienced by the companies. The workforce there had been reduced from 6,000 employees in the late 1970s to approximately 3,000 in 1982. Four months prior to the research taking place, there had been a redundancy programme which involved 750 employees, of which 250 were white collar/managerial staff.

The data were collected through interviews lasting from 2 to 2½ hours with a total of 57 middle and junior managers in various functions in the three companies. These consisted of 12 managers in Chubb, 8 in

Chloride and 37 in Massey-Ferguson. The managers in Massey-Ferguson were selected from two departments; 17 managers in the engineering department, and 20 managers in the finance department.

A question schedule was developed (appendix 6.1) which was used to conduct the interviews. The data from these interviews contain a number of insights into the impact that factors/variables such as restricted pay and promotion opportunities, job security, redundancy and the company's future have on managers. (This material is to be found as appendix 6.2).

The data from the pilot study indicated that the framework at the end of the last chapter, which was drawn from the literature, was not entirely appropriate. Most of the concepts in that framework, not unexpectedly, were still seen to be relevant, although the weights given to them were different. However, the major conclusion from the pilot study was that the notion of 'self concept' which had not been included in the previous framework, and of 'job content', were particularly important in explaining motivation amongst the managers and needed to be explored further. Most managers maintained that they worked hard, and a consistent reason given by the managers for this was that they had 'pride' in their work, or they liked to 'do a good job'. The underlying argument was along the lines that a manager's conception of himself affected a certain type of behaviour, (that is, a tendency to work hard), despite what could be seen as difficult external circumstances and a reduction in extrinsic rewards.

A brief overview of the self concept will be useful at this point.

## Self Concept

There is no attempt here at a comprehensive review of the literature on self concept. The possibility that self concept might be particularly important in understanding motivation was a product of the pilot study - not a product of the literature - although there had

been some discussion of the notion of self concept in the review of the literature in relation to values. However, while to say that the self concept is important in understanding motivation may sound on the surface to be an unremarkable statement, few cognitive theorists of work motivation place the notion of self concept in a central position in their explanations of motivation. Content theorists, of course, have highlighted the notion with the use of 'self actualisation', but the process school, on which Chapter 2 concentrated, has not given self concept a great deal of emphasis.

Nevertheless, the notion of self has been explored by philosophers and theologians for centuries. It also, of course, has a long history in disciplines like psychology, and particularly in psychoanalytical theory, but can also be found in sociological writings, for instance, in the areas of symbolic interactionism and particularly the dramaturgical school. Indeed, to fully review the notion of self would demand a thesis itself. Consequently, the concentration here will be on the self in relation to cognitive psychology, which is the area most appropriate to the thesis.

Lalljee, Stevens and Williams (1976) point out that the concept of self has been of considerable interest to psychologists, but has been used with two rather different meanings. One way in which the term has been used, is in reference to the group of psychological processes which integrate and control a person's actions, (Jung, 1923). Cognitive process models of motivation, for instance, see the self in this sense. The second way the term has been used is to denote self concept (and self image) i.e. the attitudes and feelings a person has about himself, which is the notion of self with which we are concerned here, and which in cognitive explanations of motivation has been much less to the fore.

Two issues are important in considering the self concept. The first is the question of whether the self concept is unified and stable. The second is how it develops and is maintained. The term itself, i.e. self concept, implies a unified and stable view of oneself.

Hilgard, Atkinson and Atkinson (1971) maintain that the concept of a unified self is strengthened from the outside by the fact that the locus of a person is a single body, and from the inside by the fact that memories are continuous and belong to the same person. But they and Lalljee et al argue that a unified, meaningful and stable self concept is too simple. Tensions and conflict within the person have long been recognised, and the tensions between the id, ego and superego, were anticipated by the struggles of body, mind and spirit emphasised with Hebraic-Christian traditional beliefs. More recently, role theories indicate that a person may play several roles at once, and may vacillate between roles. The concept of dissociation is used to state that there are sometimes split off aspects of personality functioning, as found normally in dreams. Cases of multiple personality, (for instance, Thigpen and Checkley, 1954, 1957; Lancaster, 1958) illustrate in dramatic ways the problems involved.

Thus, the unity of the self cannot be empirically established. But while the self concept may not be completely stable and coherent, neither is it constantly shifting. The answer in relation to most people would seem to lie somewhere between the two. Almost everybody feels a sense of continuity of self and yet the particular qualities which are characteristic of a person in one context or with one individual are not necessarily the same as when he is elsewhere or with someone else. Clearly one sees oneself differently in the role of father, to the role of company executive.

Yet although different conceptions, or images, of self may be evident in different situations, within those situations, for instance, within the context of work, there will usually be some perceived coherence and consistency. The possibility of measuring or exploring self concept within one context, would not, then, seem to be completely like holding quicksand. While clearly one's behaviour will change depending on different circumstances within one context, the individual's self concept would seem likely to have some stability within that context. If individuals are chameleons they are more likely to be so as a result of playing different roles, rather than through dramatic changes within one role.

The second issue, the question of how self concept is maintained, is equally tricky, although some clues were given above in relation to role. Lalljee et al, in considering how notions of self concept are arrived at, argue that self concept can be seen as the process through which the individual makes judgements about his or her own feelings and attitudes at a particular point in time. They believe that these processes must be an important element in making the more stable and general self attributions that are generally considered as the self concept. If a person labels himself as 'cheerful', he does so because he may have felt cheerful on a number of occasions. However, reading off one's internal state through internal cues is an inadequate assessment of how the individual arrives at his or her self concept, as the work of Schachter (1964) indicates. For instance, the experience of anger and happiness are phenomenologically very different, yet the physiological states associated with both these emotions are rather similar. Schachter's work highlighted the importance of comparison with another person in the same situation, for discriminating between these two states. His work indicated that a particular physiological state might be compatible with a range of factors, such as who the individual is with and what is happening in the situation, and the way other people in that situation are behaving.

A number of writers have highlighted the effect of interactions with others on the way individuals perceive themselves. The works of Cooley (1956), and of Mead (1934), have stressed the interactive nature of the self. Cooley suggested that the feelings one imagine's others to have about oneself are critical in determining one's view of oneself. Mead argued that it is the views of significant others, like parents, that are particularly important. Rogers (1959) also points out that one important basis of the self concept, is evaluations and definitions by people important to us, particularly in early life. McCall and Simmons (1966) emphasise the way one's perception of oneself, other people and the situation, are negotiated and are dependent on the views and imputations expressed through the altercasting of other individuals encountered. Goffman (1971) has maintained that a person's view of himself and his behaviour is likely to be influenced,

as well, by what he assumes other people expect a 'proper' person to do and be like. Festinger (1950) has argued that opinions, attitudes and beliefs which people hold must have some basis upon which they rest for their validity. He maintains that where there is a high degree of dependence upon physical reality for the subjective validity of one's beliefs or opinions, the dependence on other people for the confidence one has in these opinions or beliefs is very low. Where the dependence on physical reality is low or zero, the subjective validity of a person's belief depends to a large degree on whether or not other people share his opinion and feel the same way he does. If they do not, it is not valid. He argues that where the dependence on physical reality is low, the dependence on social reality is correspondingly high.

Lalljee et al argue that in many different ways, psychologists have argued that the views of others are critical in determining the sort of conceptions one has of oneself. Gergen (1971), however, points out that though studies have shown correlations between a person's view of himself and those of other people about him, this is not adequate to support the notion of a reflected self. It is always possible that the person has convinced others of a particular view of himself, rather than that his view of himself has been formed by other opinions. However, Krech, Crutchfield and Ballachey (1962) who highlight the case of a small group of college men who cooperated in establishing a shy and inept girl as a social favourite, show that self concept may be very affected by the behaviour of others, and that moreover, the behaviour of others need not necessarily tally with their real views.

Nevertheless, Lalljee et al argue that further factors, such as the consistency of the evaluation are obviously important; consistency both from the same person at other times, and between the evaluations of different people. If a mother treats her child generally as 'hard working' this might well become an important part of his self concept, provided she does so consistently. But the mother will not be the only person in the child's environment, and though she may consider

the child hard working, a teacher may not. Lalljee et al maintain that much more attention needs to be paid to how the person copes with different evaluations from different people. Though the views of others are clearly relevant to self concept, a view which implies the simple acceptance of the views of others is clearly inadequate.

Thus, two important aspects of self concept have been highlighted so far - the self concept as a continuous notion, and the formation of the self in relation to other people. In both cases the self concept has a lot to do with perception; in this case, the perception one has of oneself. Roth (1976) describes perception as an active process where the individual selects from an available range of cues or stimuli and goes beyond what is given in such a way that he experiences an identity which he sees as structured, stable and meaningful. Such a self perception is formed largely by the acceptance and rejection of other people. Self esteem can be seen as a function of this self perception; what is meant by high self esteem is a favourable self perception.

One other aspect of self perception noted by Hilgard et al, which was mentioned in an earlier chapter, is the perception of self as the embodiment of values and goals. Hilgard et al maintain that if one considers what is meant by ambition, jealousy, vanity, prestige, shame, and guilt, then self regard looms large in all of these. Remove them from a perception of the self and the words have no meaning for the individual. A system of values and attitudes is built up around situations that are goal directed, that can stir up feelings of self enhancement or self degradation. An ideal self (the self one would wish to become), according to Hilgard et al, is developed and a person judges his actual conduct against this ideal. They maintain that the ideal and judgements combine to give self perception a central place in social motivation.

Despite Hilgard et al's feeling that self has a central place in motivation, as noted earlier, in cognitive process theories of motivation it is largely peripheral. However, there is an area of cognitive

psychology, that of cognitive dissonance, where the concept is more central. In fact, although Rokeach's (1973) concern is predominantly with values, his is not only a theory of cognitive dissonance, which as noted earlier fits in with the trend of this thesis, but he also combines within his theory aspects of the self noted above that Hilgard et al consider important. Thus, it would seem appropriate to retain his theoretical approach as a background to the orientation of this thesis.

Rokeach's approach to self concept, outlined earlier, in essence is not greatly different from many writers, and he sees the notion as one that includes all one's cognitions, conscious or unconscious, about one's physical image, intellectual and moral abilities and weaknesses, and socio-economic position within society. In short, a person's total conception of himself is an organisation of all his cognitions in order to answer fully the question, 'who am I?'. But, importantly, the self concept as Rokeach sees it is a notion that consists of an interconnected belief system comprising of values and attitudes. However, within this general theoretical position, the comments earlier suggest that the self concept may not be as unitary as Rokeach implies. While the self concept may be stable in one context there may still be different aspects of self operating within that one context. Indeed, the self has often been seen from two perspectives. The individual has a notion of himself, a mental picture of what he/she thinks he/she is, but also a separate picture of what he/she thinks he/she should be. Both of these might be seen as a product of a 'personal knowing' and of a projection to the outside world. These perspectives, as noted earlier, may vary depending on the role an individual adopts in a certain situation. Many writers from Mead (1934) onwards have highlighted the variety and nature of the various roles individuals adopt, such as father, businessman, sportsman, and their importance for self identity. These roles can be labelled sub-selfs, which, while varying depending on circumstance, nevertheless, contribute to the total whole self concept. Even so, the two major perspectives noted above; the notion an individual has of himself, and what he thinks he should be, are likely to remain predominant, wha-

tever sub-self may be expressed at a particular time. Such a duality, and the notion of sub-selfs, would seem to be important and should be acknowledged, if not necessarily in an explanatory framework at this point, at least in any method used to explore self concept.

## Revised Framework

The comments above have a number of implications for a framework that might explain motivation. As in the earlier framework, in this revised framework, the individual is also seen as having things he values, or which are of importance to him, which will affect his approach to work. The difference here is in the kind of values emphasised and it would seem possible to combine the notion of self concept and values together to produce what will be called self image values. (The term 'self image' is used here to distinguish the type of values within the framework, and not used in the conventional sense, noted earlier. As will become clear to the reader, a distinction is made between values that may directly affect self perception and those which may do so only indirectly. As all values are related to self concept, labels of 'self concept values', and 'non self concept values' would seem to be unacceptable. Use has been made of the term 'self image' to get round this difficulty).

The following list gives examples of self image values which would be appropriate to the work environment.

| | | |
|---|---|---|
| Efficiency | Intellectualism | Hard work |
| Capability | Competence | Determination |
| Mental Quickness | Accuracy | Sociability |
| Thoroughness | Social Acceptance | Coolness |
| Responsibility | Ruthlessness | Independence |
| Obedience | Reliability | Methodical |
| Self control | Productive | Consistency/rationality |

These values are related to the personality factors of Cattell (1946) and also of Edwards (1954), and can be viewed as relatively stable,

although not fixed, and are seen as general guides to action. The achievement of such values is considered to be important for the individual's self worth. He might be considered to have a core set of self conceptualisations. Whether the individual will then be motivated or not can be seen in terms of these self conceptualisations and expectancy theory; that is, in terms of on the one hand factors or 'rewards' that will support the individual's self concept of himself, and on the other, whether 'rewards' are available, whether the individual values these and whether if he puts forth the effort he will achieve them. The availability of rewards will depend on the individual's job and its content. Thus by this reasoning, the individual's desire for a job that is significant or challenging stems from the fact that these may enable him to demonstrate, for instance, his capability, competence or intellectualism which would stem from the self image values he holds.

If a job, then, contains aspects which will enable a manager to fulfil values that are important to his self image, for instance, competence, or creativity, then he is likely to be motivated. If such rewards are not available then he may become frustrated or feel some sort of cognitive dissonance. Thus, using this, it is possible to explain why, in the pilot study, many of the design engineers in Massey Ferguson were frustrated. While valuing thoroughness, they had tight deadlines imposed on them which caused a conflict for them. Also, changes in direction from senior management prevented them from doing a thorough job, which as a result, caused frustration. The finance managers, on the other hand, who were also subjected to tight deadlines, but who placed greater emphasis on efficiency, were not frustrated by the deadlines, even though they were much tighter.

However, the values a manager holds may not necessarily benefit the organisation that employs him, but may be dysfunctional for it. For instance, someone who values social acceptability above other work values, as with one of the factory superintendent's at Chubb, may not be prepared to implement the changes a company desires if he thought these might make him unpopular in the factory.

In addition to these self image values, the individual will also have a number of other factors which he will feel are important to him at work. These are also seen as related to the self image, but are a sub-category that have been collected under the umbrella title of 'situational factors', and include the following,

| | |
|---|---|
| Promotion | Money and material items |
| Autonomy | Growth in physical and mental terms |
| Interest | Personal contact/friendship |
| Variety | Personal exchange of ideas |
| Skill development | Structuring of life |

Situational factors are aspects which an individual may desire, but which are either, instrumental in obtaining other factors, or are valued in their own right, or are a mix of these two. An example is money, which might be valued for the personal needs for which it can provide, but also because it is a reflection of self worth by the company. Promotion similarly. Skill development, which might be valued in that the more skills an individual may have, the more marketable he may be, may also have instrumental self image consequences in that to be a well developed skilful person enables one to be capable, competent etc.. The same is also true of physical and mental growth and also of autonomy. Autonomy, which played a more important role in the previous framework is not now seen as demanding a particular emphasis. Nevertheless, it is still seen as being important. Autonomy, also a hybrid, might be valued in itself, but it may also be instrumental in obtaining or permitting one to pursue other factors or values.

A situational factor might be seen as important in its own right because it provides something of need to the individual rather than contributing to the way he sees himself. A job that is interesting, for instance, allays boredom, although what an individual finds interesting may be related back to the self image. But the individual may need variety, or personal contact, or friendship, or a personal exchange of ideas not because he wants to look intellectual, for instance, but because he enjoys it. (However, again one might argue

that all this shows is that he has a value of pleasure and personal contact fulfils this).

In summary, then, the argument is that the values the individual brings to work, will interact with the circumstances he finds in his job and with regard to the organisation generally. The job and organisation will provide a number of rewards which in expectancy theory terms, if seen by the individual as being of value and attainable, will have certain positive outcomes for the individual, although not necessarily for the organisation. If the rewards are not of value, or the individual feels that exerting effort will not attain them, then negative outcomes both for the individual and the organisation occur. The major difference between this and the previous framework is in reducing the importance given to individual autonomy, organisational control and acceptability of that control.

Two additional elements included in the previous framework are still seen as important. The first is the affect of feedback; whether the rewards obtained do fulfil some values/goals of the self concept, or whether if there is failure to achieve those rewards, the individual tries for them a second time. The individual may also, as seems to be the case in recession, lower his/her expectations of the rewards or their attainment.

The second element is uncertainty. Many managers in the pilot study argued that uncertainty did not affect their day to day effort. Nevertheless, uncertainty seems to be different to the frustration that, for instance, resulted from the changes in direction the company was taking which affected the engineers in Massey, and in view of the trading environment, uncertainty should be acknowledged in a research framework.

A number of possible consequences are likely as a result of the interaction between the various values of the individual on the one hand, and with the extrinsic and intrinsic rewards that are available in the job and organisation, on the other. Three consequences were emphasised in the previous framework, and were concerned with behaviour. Here six main consequences are considered, of which the three

additional consequences relate to feelings. The consequences are each considered to be dependent variables, but one may affect the other. For instance, as three of the outcomes are related to feelings and three are behaviours then clearly particular feelings may be related to particular behaviours. A number of possibilities relating to these variables can be hypothesised as follows.

The first of these, frustration, is seen to occur when the individual is prevented from achieving desired rewards, or goals. This may lead to a reduction in effort if the problem cannot be overcome, or ceasing to work altogether, but may also lead to an increase, or at least no reduction in effort if the individual believes that the cause of the frustration can be removed.

The second, satisfaction, occurs if self concept values are able to be fulfilled. This may mean an increase in effort, but, equally, it may not, especially if, for instance, one values an enjoyable, easy going existence.

Third, enthusiasm, or keenness to perform a task, it is suggested, is affected where the rewards are are not valued, or it is not possible to attain them. Enthusiasm may also be reduced where it is not possible to receive rewards of a required standard. A lack of enthusiasm could be seen as apathy. It will most likely affect effort, but not always if other self image values, for instance, hard work, are overriding.

The fourth outcome, commitment to the organisation, it is suggested, is affected where some important rewards are no longer seen as attainable in the job or organisation, or greater rewards can be obtained from outside. Where rewards are unsatisfactory, but the individual is unable to move from the organisation, then the individual may adapt and/or experience lack of enthusiasm.

Fifth, it is hypothesised that effort depends on whether the most valued rewards can be obtained. A reduction in effort may be related

to frustration, but equally frustration may lead to increased effort. A lack of enthusiasm would seem likely to lead to a reduction in effort. Satisfaction, or providing for satisfying experiences, may or may not lead to an increase in effort, but the relationship is unclear. Effort may not always be functional in organisation terms. If someone values an easy life, they may put most of their effort into achieving that.

Sixth, it is suggested that the individual may stop work altogether or engage in other tasks and activities. This may result from frustration, but more possibly, it may result from rewards not having valence, or the individual's low expectancy of achieving rewards.

As in the previous framework, other factors, which do not need specifying but which should be noted, are seen as affecting actual performance, which then gives rise to outcomes. As previously, outcomes are seen here in relation to whether or not a person obtains desired rewards. A diagrammatic representation of the framework is shown in figure 6.1.

This framework as it stands attempts to explain an individual's motivation at a particular moment. That is, the framework is static. How motivation might be increased is not simple. If valued rewards are not available, or too difficult to attain, then providing these might lead to an increase in effort. However, if the wrong values, in organisational terms, are the ones the individual pursues and achieves, it may not be so easy to motivate in an organisationally beneficial way. One would have to change the individual's values, or their priority, or reduce the opportunities where the dysfunctional values might be pursued.

Finally, it is suggested that objective setting might be seen as a form of control which might also help to motivate. In 'normal' circumstances objectives might be set and adhered to because failure to comply would mean the loss of rewards of value. Self set objectives may be establshed because, in this framework, they are seen as a tool to help the individual achieve valued rewards.

REVISED FRAMEWORK

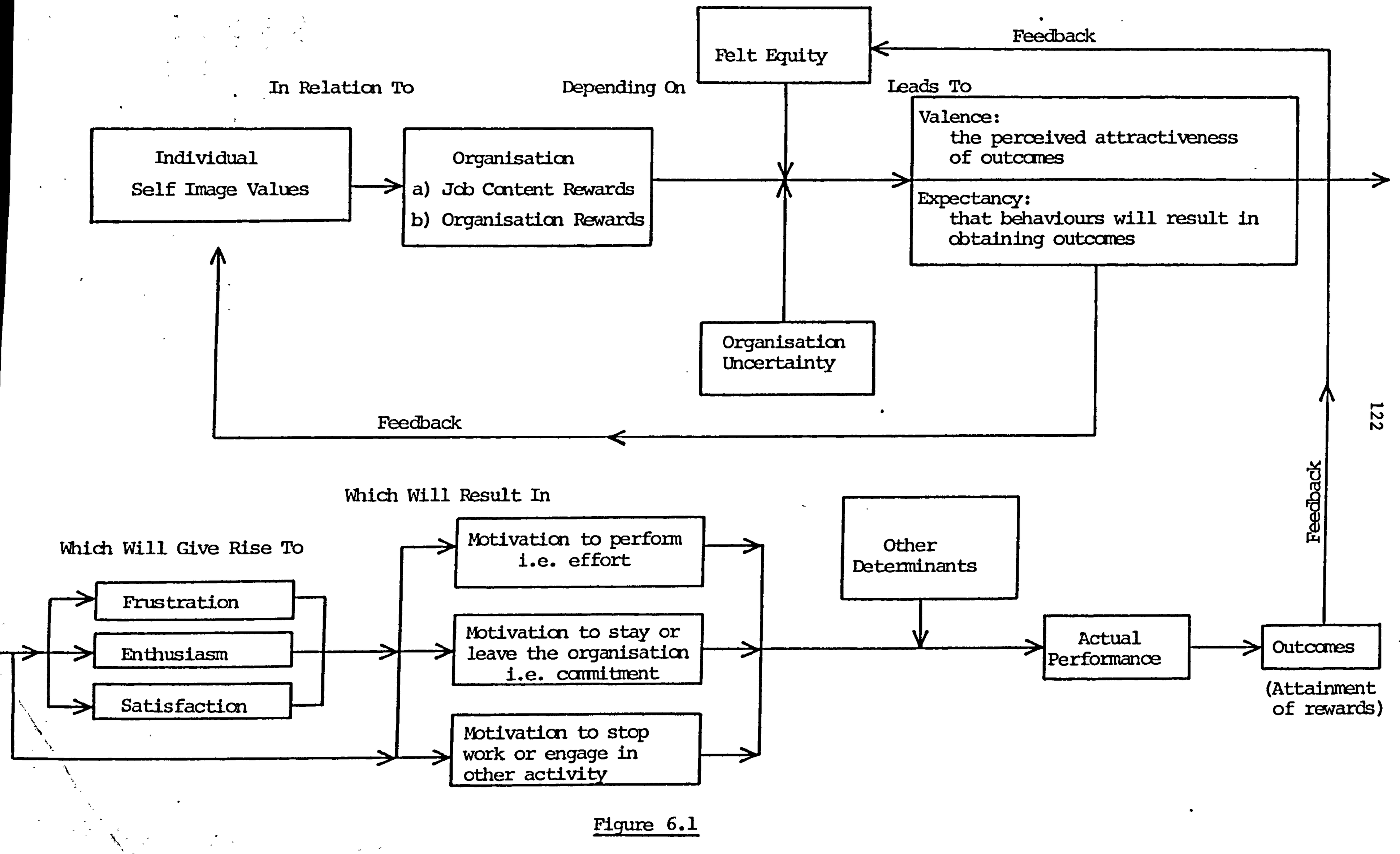



Figure 6.1

# CHAPTER 7

# MAIN STUDY

## Introduction

The main study was conducted in two companies, Sandvik Ltd, and Lansing Bagnall Ltd. They were selected from separate industries (machine tools and fork lift trucks, respectively), but both met the general criteria outlined in the previous chapter. A total of 45 managers took part in the research in the two companies.

## Research Method

The framework outlined at the end of the last chapter, as with the first framework, was meant to act as a guide to assist with explanation, rather than act as a model from which propositions might be drawn and explicitly tested. The central aspect of the framework was the inclusion of the notion of self concept, outlined there in terms of self image values, which had been highlighted in the pilot study. The main study aimed at exploring the notion of self concept in relation to motivation in a field setting within this paradigm.

The research method was a combination of semi-structured interviews (comprising the questions used in the latter part of the pilot study and outlined in appendix 6.1) with Repertory Grid technique.

The adoption of a methodology combining Repertory Grid technique and interview came as a result of concluding that this was particularly appropriate to the environment and the subjects under study. The self concept of the respondents could not be explored by interview alone, but finding an appropriate instrument to do this with managers in a

manufacturing environment was not straightforward. There are a number of psychological tests, (see, for instance, Robinson and Shaver 1973), but many, such as personality tests, do not explore the particular concern here; that of the self concept of the individual in relation to work. Moreover, those which do, suffer from what was seen as a drawback in the organisationally contracting field environment - their coldness and lack of personal involvement. Repertory Grid, for reasons outlined below, was an apropriate instrument for the research context.

In addition to the interview and Repertory Grid a measurement of managers' general effort was also sought for the main study. This was achieved through two procedures. The first was to get the manager to self rate his own and his colleagues work effort using the Repertory Grid. The second was to get an independent rating of work effort from a manager who had knowledge of each manager's work.

Repertory Grid

As the Repertory Grid technique plays an important role in the research, it is worth considering the technique in some detail. However, before Repertory Grid is considered specifically in relation to this particular research it may be helpful first, briefly, to give a general outline of the the technique.

Although George Kelly's name is most associated with grid technique, the notion of grids as a method of eliciting meaning from individuals was developed before Kelly. Nevertheless, Kelly's development of the technique, put forward in 1955 as the Role Construct Repertory Grid Test or Reptest, linked to his Personal Construct Theory, did most to establish the technique and it is worth outlining his position.

In Kelly's Personal Construct Theory the individual is seen as having an assumptive world that involves a construct system or represen-

tational system which is composed of abstract categories or internalised standards of reference against which objects may be judged. What, for some, was of greater importance was Kelly's notion that this construct system could be made accessible to the investigator via a defined operational technique which maps the construct system itself, i.e. the Reptest.

Young and Mills (1980) outline Kelly's original grid technique as follows. A respondent was asked to supply the names of 24 people who fulfilled various roles, for example, 'father', 'mother', 'wife', 'boss', and write their names on cards. The respondent was then shown three of the cards and asked to describe some way two of the role figures were alike and different from the third, a process known as triad sorting. For example, 'father' and 'boss' might be described as harsh and 'mother' as gentle. 'Harsh - gentle' would then be a construct used by the respondent to describe people. The remaining role figures would then be allocated to one pole or the other of the construct. Further constructs could then be derived using different groups of role figures, each time allocating the remaining figures to either of the two construct poles, until the constructs of the respondent relating to this set of people were exhausted.

The test resulted in a matrix of 24 x n binary scores where n was the number of constructs elicited. The rows of the matrix represented the constructs, while what Kelly termed the 'grid elements' (in this case role figures) were represented by the columns. The matrix could then be analysed to examine, for example, the extent to which the person used a variety of different constructs or a few similar constructs with different names, or the extent to which some role figures were seen as similar to others.

Originally intended as a clinical tool for use by practising psychologists, the technique has undergone a number of modifications as it has been applied to a wider range of questions and extended into a number of different fields outside clinical psychology, from areas as diverse as architecture to education.

Young and Mills point out that Repertory Grid has a number of distinct advantages for certain types of research. Of particular importance is the flexibility of the technique in its range of application, and a generalised grid technique has evolved from the interaction and combination of a number of assessment methods including Kelly's Repertory Grid, Osgood's Semantic Differential, and Stephenson's Q sort technique. As a derived method it is accompanied by no definite rules for its application or construction, changing to meet the requirements of each experimental situation. Also important is the way in which the respondent is able to structure his replies in his own terms with thus a reduced chance of interviewer bias. But perhaps for many researchers the major attraction of the use of grid technique in social research is the possibility of statistical analysis, and Slater has developed a number of computer packages which produce a large amount of statistically analysed output which Salman (1976) notes is 'hard' data.

The technique, however, as with almost all instruments, is not without its problems. It is difficult to know, for example, whether the 'right' number of constructs have been elicited from a respondent and how salient they are to him. There is also the question of whether a person's constructs remain stable over time and whether a particular set of constructs is applicable in a number of different situations, although quite a lot of work has been done on the reliability of grid technique by such as Bannister and Mair (1968), and Slater (1977). Indeed, as Lewis (1973) points out, and his own work shows, the studies that have been done afford ample evidence of the reliability and validity of grid method in general. An additional problem is that some writers regard the length of time required to obtain grid information from respondents as a major difficulty.

Young and Mills conclude that the use of grid technique is inappropriate unless founded on a sympathetic consideration of its theoretical underpinnings and on an approach to research which is essentially exploratory and negotiatory. They maintain that the key to the successful use of Repertory Grid techniques seem to be their

integration into a research strategy in which they are used as a part of a loosely structured interview and in conjunction with other techniques.

Possibly most writers would agree with the latter part of the above paragraph, although there does seem to be some controversy and perhaps contradiction in relation to the theory associated with grid techniques. While writers such as Young and Mills and the author of the UMCC GAP manual (1981), offer as one of the attractions of grid technique the notion that a user does not have to accept any theoretical underpinnings to use it, as Young and Mills lament, the technique would seem to be rather impotent unless tied in to some theoretical framework. In the case of this research the theoretical notions that have been outlined in previous chapters, especially those of Rokeach, would not seem incompatible with the construct theory advocated by Kelly.

Rokeach's emphasis, of course, is on values, but while Kelly did not seem to explicitly state that values had any particular place in his theoretical outline, a number of other writers refer to a relationship between cognitive maps and values, and certainly a grid can be constructed to elicit values. Young and Mills, referring to data produced from interviews about a person's 'assumptive world', state that it can be presented in the form of a 'cognitive map of the person's values and beliefs which can then be analysed mathematically'. Indeed, Slater (1977) noting that the individual can describe his private world in terms of the elements and constructs of a grid, argues that his,

> 'Personal construct system has its own inner logic, a set of relationships and values which he has built from his experience. The system is not necessarily consistent throughout, but even with internal inconsistencies each person's system hangs together as a whole. To understand another person we need to see the inner logic which makes the construct system complete and interrelated. We cannot understand another person by imposing the inner logic of our own construct system on to his behaviour. His values may be different from ours.'

Slater continues noting that,

> 'The word values is stressed here since it is not the case that personal construct theory is a purely cognitive theory of behaviour as people often view it. Generally an individual's constructs assign a value, a quality of goodness or badness of the elements they apply to...'

Thus, the notion of values would seem to have some acceptance as being theoretically compatible with the use of grid technique. Indeed, Kelly's (1963) statement, noted earlier, that a construct system is composed of 'abstract categories or internalised standards of reference against which objects may be judged' would not seem to be too far removed from Elms' (1976) definition of a value as 'an individual's criteria for judging the worth of things'. Moreover, much of the arguments concerned with the relationship between cognitive maps and behaviour are similar to those put forward advocating a relationship between values and behaviour.

Thus, grid technique would seem to be appropriate to this study because it is concerned with the individual's assumptive world and the meaning he gives to it. Particulary important, in the light of Russell's (1980) criticism (Chapter 3), is the fact that the technique allows the individual to define his situation rather than have the researcher thrust his categories and definitions on the respondent. The technique is also compatible with the theoretical assumptions of this thesis, and moreover, and possibly most appropriately, it is particularly suitable for studying the individual's self concept and for eliciting the self image values that were noted in the previous chapter.

## Repertory Grid and the Self Concept

According to Bannister and Fransella (1971), construct theory differs from personality theories centred on the self, in that the self is seen as a construct along with all other constructs, albeit a very

important construct. Kelly (1955) sees the self as particularly important noting that,

> 'When a person begins to use himself as a datum in forming constructs, exciting things begin to happen. He finds that the constructs he forms operate as rigorous controls on his behaviour. His behaviour in relation to other people is particularly affected. Perhaps it would be better to say that his behaviour in comparison with other people is particularly affected. It is, of course, the comparison he sees or construes which affects his behaviour. Thus much of his social life is controlled by the comparisons he has come to see between himself and others.'

Kelly suggested a variation in his method of eliciting constructs to take particular account of the self construct. Called the Self Identification Form, a subject in this case is given the possibility of providing the constructs he uses to identify himself in contrast to others, by always being presented the card showing the subject's own name along with two others in each sequence of eliciting constructs.

Norris and Norris (1976) attempt to take the notion of self image and grid technique forward by offering the 'Self Identity System'. Here self conception and this system are seen not as a unitary notion, but consisting of at least three important components;

- the actual self, being the representation of the individual now,
- the ideal self, being the representation of the individual's aim or direction of desired movement,
- the social self, being the representation of other people's conception of the individual.

They assume that the Self Identity System performs the function of reducing self uncertainty by defining the relationship between the three self elements and the representation of the personal-social environment. Ryle in Slater (1976) also argues that the relationship between actual self and ideal self indicates the degree and nature of self dissatisfaction. However, Norris and Norris go further main-

taining that a system which defines the relationship between a person and his social environment (i.e. the people who are significant in his life) must have implications for behaviour, and that as a result of previous behaviour and its consequences, the system itself determines the range of choices and the selection made in present and future behaviour.

While the Norris and Norris paper is encouraging in that they go on to provide data identifying and quantifying states of 'actual self isolation', 'ideal self isolation', 'social alienation', 'self alienation', and 'self convergence' they do so with subjects who might be considered to be psychologically abnormal. Easily identifiable patterns may not be so evident with, possibly more normal, managers.

Nevertheless, while the concept of self identity seems to have had only limited work done on it within the field of grid technique, as a possibly important and behaviourally related notion, it has at least some acknowledgement in the grid literature. Moreover, it ties in with the comments made towards the end of the previous chapter about the importance of acknowledging different aspects of self in a methodology that explores self concept. Along with the conclusions from the pilot research there seemed, then, to be some justification for pursuing the notion of self identity with managers using grid technique.

## The Devised Grid

The first decision that had to be made in devising the grid for this particular research was how to establish or elicit the elements and constructs. In order to ensure that a number of grids could be compared, either the elements or constructs had to be the same for each grid. This is done by the researcher providing either the elements or constructs himself, similar to the way Kelly provided his 24 role elements outlined earlier. In this case, for reasons noted later, the elements were provided and the constructs were elicited using the

triad method. The researcher can also provide the constructs but in this case this was not possible for a number of reasons. In the first place, to provide constructs one needs to ensure that the data from which the constructs have been devised are taken from a representative sample of the kind of respondents who would participate in the future study. The data from the managers interviewed in the pilot study were not necessarily representative enough of managers who would be involved in the next phase of the study. They, of course, have similarities in being managers and in working in contracting organisations. But using, for instance, the data from the finance managers at Massey-Ferguson to provide constructs would give a different picture from that provided by the data from the engineers at Massey, and this would not seem to go very far towards establishing how the managers who would be interviewed in the future, perceived their world. Additionally, by getting managers to provide their own constructs the process was seen to be more involving and thus more interesting for the managers.

There are a range of possible grids that might be constructed to elicit notions about the individual that relate to this study. For instance, elements could have been provided that sought to establish the feelings that managers experienced at work, such as enthusiasm or frustration, but triad comparison of elements designed to do this was complex, and eliciting constructs was difficult. Another possibility was to provide elements of work characteristics, such as pay, promotion, security etc, but these just seemed to elicit constructs along the lines of 'acceptable - unacceptable', and were not particularly discriminating. Moreover, neither of these two examples really fully elucidated the self concept of the individual.

One possibility that gets closer to the notion of self concept is where elements concerned with work situations are provided, such as 'me interacting with boss', 'me writing reports' etc, but to establish these would have demanded a lengthy interview essentially concerned just with job content and situations, and moreover, one manager's elements would not have been very comparable with all the others. The

grid which came closest to the notion of how the individual sees himself at work was one that had elements that got the manager to compare himself with other work associates. The reason for providing this type of element was based on Kelly's description of the self concept quoted above, and the work of Norris and Norris, that the self concept is a product of how we feel we are viewed by others and how we see ourselves, either similar to, or standing out from others. It also relates to the comments in the previous chapter about self concept and the importance of significant others in its formation.

The first three elements that were considered to be appropriate related to Norris and Norris' notion of the Self Identification System and their separation of the self into three items. In this case, the present self, and the ideal self, were used along with what is called here, the 'organisation self'. These were operationalised by the elements 'myself as I am at work', 'myself as I would like to be seen at work', and 'myself as seen by the person with most influence on my future'. This latter element would not seem on the surface to relate to the social sense in Norris and Norris' terms. But it was felt that the element 'how I am seen by others at work' was too vague and not necessarily appropriate. What was needed was a role that was specific and which portrayed the organisation to the individual, as it was felt that an important significant other would have more impact on the manager's possible behaviour and feelings.

In addition, another self element was added in order to find out whether the individual felt he/she had changed with the changing organisational circumstances. This was 'past self'. In this case, the individual was meant to focus on a period two years ago, before recession had set in. The idea behind this was essentially to see whether constructs of uncertainty and insecurity might be salient to the managers.

The remaining elements are role elements which relate to work associates. These were taken from Smith and Ashton's (1975) grid used to evaluate management training and explore interpersonal relationships.

It was felt that with modifications to the process they used, a grid could be produced for this research that elicited constructs relating to the self. In this case, Kelly's Self Identification Form was added, where the present self element 'myself as I am at work' is always used in relation to the two other elements used to elicit each construct.

The elements were, 'boss' and 'boss's boss' (the self being seen here in relation to authority figures), 'colleague liked' and 'colleague disliked' (the self in relation to affective figures), 'subordinate; good performer' and 'subordinate; bad performer' (the self in relation to how he sees performance), and 'person likely to get on' and 'person not likely to get on' (the self in relation to how he sees personal success).

What might be called a standard procedure for eliciting the grid was adopted, similar to that outlined by Drake (1980). A typewritten list of the roles was given to the respondent (figure 7.1). The individual was then asked to substitute people that he believed occupied each role and write the names of each person chosen on a separate blank card. The three self elements were also written on separate cards. These names were then written along the top of a prepared grid sheet. The cards were then shuffled and two presented in relation to the myself element. The resulting construct was written on the left hand side of the grid sheet with the oppposite pole written alongside. The triad method was then used to elicit more constructs until the respondent exhausted his list of constructs. These were written down the left side of the grid sheet along with the polar opposite. It was decided to give the individual one construct as this was of particular importance to the study. This was the construct 'hard working - not hard working'. The aim was to elicit at least 8 constructs as Chetwynd Tutton (1974) points out, this seems to be a critical number, and more constructs do not seem to add a great deal to understanding a subject's personal construct space.

Along the top of the grid sheet the respondent filled in the names of those who represented each element. When the respondent had elicited

## ROLE SHEET

1. Present Self - myself as I am at work now.

2. My Boss

3. My Boss's Boss

4. Subordinate: good performer

5. Subordinate: bad performer

6. Colleague liked

7. Colleague disliked

8. Person likely to get on

9. Person not likely to get on

10. Ideal Self - myself as I would like to be seen at work

11. Past Self - myself as I was two years ago at work

12. Myself as seen by the person who has most influence on my career in the organisation. This would be written on the grid sheet as 'Myself as seen by.....(name)'. The name refers to the person who, for instance, writes your performance appraisal report, if you have one, or who has most say in whether you are promoted or transferred etc. Most usually this would be your boss or boss's boss.

Figure 7.1

all his constructs each element was then rated, in terms of a seven point scale, with regard to each construct. An example of the grid complete with the elements and first construct is given in figure 7.2.

## Possible Analysis

In order to get some idea of the kind of outcomes that might be expected from the use of a grid and whether it had any possible value to the study, a comparison was made of two grids completed by two managers, (figures 7.3 and 7.4). This comparison was made in order to assess the possible areas of interpreting and analysing the grid data, rather than acting as a justification for its use. The comparison did help to clarify the kind of grid that might be applied, and possible end results.

The analysis of the grids of the two managers, using the INGRID computer programme is given in appendix 7.2. The INGRID programme, developed by Slater for analysing single grids, was used because the programme and the computer expertise were available at Cranfield. The programme is well developed and one of the most comprehensive available.

The comparison shows that not all of the output from INGRID is appropriate. Nevertheless, it does indicate definite differences between the two managers and it aso indicates the most useful measures for comparing managers. Moreover, the grids that the managers elicited, seemed to be close to what was described in the previous chapter as self image values. Clearly, two grids are not enough to establish how widely such constructs might be used by managers, but the fact that this particular type of grid elicitation produced such constructs suggested that the instrument had potential for identifying the areas of interest to the study.

## EXAMPLE GRID SHOWING ELEMENTS AND FIRST CONSTRUCT

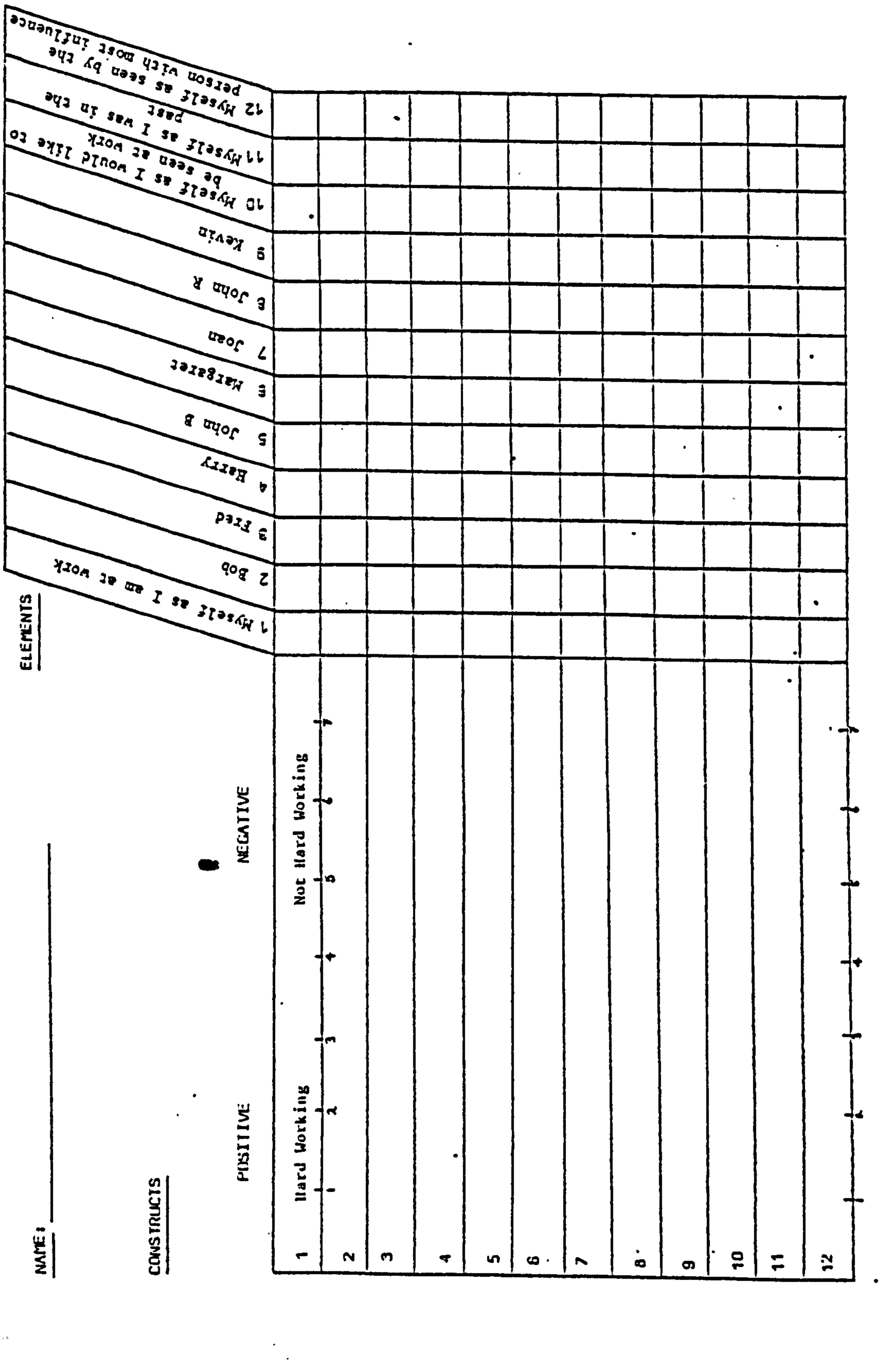



Figure 7.2

PILOT GRID – MANAGER 1

NAME: GRID 1 : MANAGER 1

| CONSTRUCTS | | | ELEMENTS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | POSITIVE | NEGATIVE | 1 Present Self | 2 My Boss | 3 My Boss's Boss | 4 Subordinate; Good Perform. | 5 Subordinate; Bad Perform. | 6 Colleague Liked | 7 Colleague Disliked | 8 Person Likely To Get On | 9 Person Not Likely To Get On | 10 Ideal Self | 11 Myself as seen by the person with most influence | |
| 1 | Hard Working | Not Hard Working | 2 | 2 | 2 | 2 | 6 | 4 | 4 | 1 | 4 | 1 | 1 | |
| 2 | Conscientious | Not caring | 1 | 3 | 2 | 3 | 6 | 5 | 4 | 3 | 3 | 1 | 1 | |
| 3 | Intelligent | Unintelligent | 3 | 3 | 3 | 5 | 5 | 3 | 4 | 3 | 7 | 2 | 2 | |
| 4 | Politically Ambitious | Politically Inept | 3 | 3 | 3 | 5 | 4 | 6 | 4 | 2 | 6 | 3 | 4 | |
| 5 | Keen | Disinterested | 1 | 1 | 1 | 2 | 5 | 3 | 3 | 1 | 5 | 1 | 1 | |
| 6 | Ambitious | Unambitious | 2 | 2 | 2 | 4 | 5 | 2 | 2 | 1 | 7 | 2 | 3 | |
| 7 | Get Along Well | Socially Inept | 3 | 3 | 3 | 3 | 4 | 3 | 5 | 3 | 3 | 2 | 4 | |
| 8 | Flexible | Rule Governed | 3 | 4 | 5 | 4 | 5 | 2 | 4 | 2 | 4 | 3 | 2 | |
| 9 | Pragmatic | Idealistic | 3 | 2 | 2 | 3 | 3 | 7 | 2 | 1 | 4 | 3 | 2 | |
| 10 | Sophisticated | Not Sophisticated | 3 | 2 | 2 | 4 | 4 | 4 | 6 | 2 | 4 | 2 | 3 | |
| 11 | Tough Minded | Tender Minded | 3 | 3 | 3 | 5 | 6 | 5 | 4 | 3 | 5 | 2 | 1 | |
| 12 | Intellectual | Mentally Limited | 2 | 2 | 2 | 5 | 6 | 2 | 4 | 2 | 6 | 2 | 2 | |

FIGURE 7.3

# PILOT GRID - MANAGER 2

| ELEMENTS | 1 Present Self | 2 My Boss | 3 My Boss's Boss | 4 Subordinate; Good Perform. | 5 Subordinate; Bad Perform. | 6 Colleague Liked | 7 Colleague Disliked | 8 Person Likely To Get On | 9 Person Not Likely To Get On | 10 Ideal Self | 11 Myself as seen by the person with most influence |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NEGATIVE | | | | | | | | | | | |
| Not Hard Working | 1 | 1 | 2 | 5 | 4 | 2 | 2 | 2 | 7 | 1 | 1 |
| Mentally Slow | 3 | 3 | 2 | 4 | 7 | 2 | 2 | 1 | 6 | 1 | 4 |
| Reserved | 5 | 2 | 1 | 2 | 4 | 3 | 2 | 4 | 4 | 3 | 6 |
| Crawling | 2 | 4 | 6 | 2 | 2 | 3 | 6 | 5 | 1 | 4 | 4 |
| Closed Minded | 2 | 3 | 7 | 4 | 5 | 3 | 7 | 6 | 1 | 2 | 4 |
| Not Caring | 1 | 1 | 1 | 5 | 4 | 2 | 2 | 1 | 6 | 1 | 1 |
| Incompetent | 2 | 2 | 1 | 3 | 7 | 1 | 1 | 1 | 6 | 1 | 4 |
| Uncouth | 2 | 3 | 1 | 5 | 6 | 2 | 1 | 1 | 6 | 2 | 4 |
| Thick | 2 | 3 | 2 | 4 | 7 | 1 | 1 | 1 | 7 | 1 | 3 |
| Self Conceited | 2 | 3 | 7 | 6 | 3 | 4 | 7 | 5 | 5 | 4 | 3 |
| Inefficient | 3 | 2 | 3 | 4 | 6 | 1 | 3 | 2 | 7 | 1 | 4 |
| Not Capable | 2 | 2 | 3 | 2 | 6 | 2 | 4 | 1 | 6 | 1 | 4 |
| POSITIVE | | | | | | | | | | | |
| Hard Working | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Mentally Sharp | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Outgoing | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Not Crawling | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Open Minded | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Caring | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Competent | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Cultured | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Clever | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Modest | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Efficient | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Capable | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

NAME: _____ GRID 2: MANAGER 2

CONSTRUCTS

FIGURE 7.4

## Overall Data Collection Method

The main data collection method combined Repertory Grid with an interview. The Repertory Grid was seen to be a technique that could elicit the self image constructs that the initial research had concluded were of importance, and also explore different conceptions of self in a way that provided some kind of measurement. The interview was an important additional data collection tool. Indeed, the notion that the information from grids alone is not entirely complete for a research study is supported by the literature. Kelly believed that other sources of information should be used along with Repertory Grid, and Young and Mills were cited earlier as advocating that other techniques should accompany the use of Repertory Grid, particularly a loosely structured interview.

The interview and Repertory Grid together lasted for between 2 and 3 hours. Some small modification was made to the question schedule used in the latter part of the pilot study, but these questions formed the basis of the main study interviews. The interview lasted on average between 1¼ and 1½ hours, and the Repertory Grid was conducted afterwards. The whole of the grid did not need to be completed under supervision. If managers overran the time they had made available to the researcher, as long as they had elicited the constructs and had made one rating against the elements, they could finish the grids in their own time and return them to the researcher in prepaid envelopes.

Chapters 8, 9 and 10 are concerned with analysing the data from this dual methodology. Before we look at the data, however, some comments on the method of analysis are appropriate.

## Method of Analysis

The analysis contained in Chapters 8, 9 and 10 concentrates on the information that was obtained, with the repertory grid instrument, from the 44 managers in Sandvik and Lansing Bagnall. Each chapter uses the data in a different way in order to generate insights into the managers' feelings and work activity. The last of these three chapters outlines a number of individual case studies, which gives a range of insights into the managers studied. Nevertheless, such a case study approach limits the generalisability of the conclusions. The first chapter concentrates on group analysis, which while lacking the richness of the later chapter, is intended to indicate propositions that might have more general applicability.

The general question that is investigated throughout, is whether managers displaying certain patterns between their different aspects of self, as operationalised by the repertory grid, also display certain types of work activity, particularly whether, in general, they work hard or not. The analysis that is employed in the last two chapters is fairly straightforward and does not demand elaboration at this point. However, the analysis used in Chapter 8 is complex and some discussion of the method is needed, which also has relevance to the final chapter.

The group analysis used in Chapter 8 was adopted in order to establish propositions of a general nature. The basic assumption underlying this is that if a number, or group, of managers with a common characteristic, for instance, they are all hard working, also display another characteristic in common, for instance, they all hold the notion of hard work high in their construct system, then this would suggest some grounds for looking further at the proposition, for instance, that there is a relationship between our tendency to work hard, and the constructs we hold.

Such a proposition might be further supported if it could be shown that a group of managers with the opposite characteristic, (e.g. those

who were not hard working), also displayed the other opposing characteristic to the first group, (e.g. they did not hold hard work high in their construct system). Moreover, as the managers are drawn from a pool composed of managers from two different firms in two different locations, then there would seem to be some justification for establishing the above as a general hypothesis which further research might then test more fully.

Thus, the analytical approach of this first chapter is one of comparing groups in order to look for statistically significant differences relating to the notions of self and hard work. This method of analysis has been used in order to indicate/suggest possible relationships between the main variables. It is an approach (i.e. group comparison) which, in general terms, writers such as Glaser and Strauss (1967) maintain is particularly useful in generating propositions.

Items For Exploration

The analysis of the Repertory Grid output from the two pilot managers, pointed to a number of measurements that might be particularly relevant in exploring how aspects of the self might relate to notions of hard work. The analysis centres on the relationship between six variables based on the notions of different self aspects and sub-selfs, raised in Chapter 6. These six variables are,

Element 1 (E1) Present Self
Element 10 (E10) Ideal Self
Element 12 (E12) Organisation Self
Element 2 (E2) Boss
Element 3 (E3) Boss's Boss
Construct 1 (C1) Hard working/Not hard working

Each of these variables are combined to give 10 separate relationships as follows. Between,

(a) Present Self (E1) and Ideal Self (E10) - E1/E10
(b) Present Self (E1) and Organisation Self (E12) - E1/E12

(c) Ideal Self (E10) and Organisation Self (E12) - E10/E12
(d) Present Self (E1) and Boss (E2) - E1/E2
(e) Present Self (E1) and Boss's Boss (E3) - E1/E3
(f) Ideal Self (E10) and Boss (E2) - E10/E2
(g) Ideal Self (E10) and Boss's Boss (E3) - E10/E3
(h) Construct 'Hard working' (C1) and Present Self (E1) - C1/E1
(i) Construct 'Hard working' (C1) and Ideal Self (E10) - C1/E10
(j) Construct 'Hard working' (C1) and Organisation Self (E12) - C1/E12

Specifically, the relationships that the pilot analysis indicates are of most importance, are as follows,

1) Measures concerned with the way the notion of hard work is held in a manager's construct system.
   - the angular distance of construct 1 (hard working) in relation to the present self (E1), (known as C1/E1).
   - the angular distance of construct 1 (hard working) in relation to the ideal self (E10), (known as C1/E10).
   - the angular distance of construct 1 (hard working) in relation to the organisation self (E12), (known as C1/E12).

   (The smaller the number measuring these distances, the more important hard work is held in relation to an aspect of the self).

2) Measures concerned with the degree to which managers' views of their present self, ideal self and organisation self are similar to each other.
   - the distance between present self and ideal self, (i.e. the measure E1/E10, which is believed by some writers to be an indicator of self esteem).
   - the distance between present self and organisation self, (i.e. the measure E1/E12 which will be called organisation esteem).
   - the distance between ideal self and organisation self, (i.e. the measure E10/E12).

   (Again, the smaller the number that measures these distances, then the closer the individual's selves are. A small number for the distance E1/E10 would mean the manager was high on self esteem, i.e. his present and ideal views of himself were fairly similar).

3) Measures concerned with the degree to which managers see their ideal and present selves similar or dissimilar to how they see their boss and boss's boss.

- the distance between present self and how the manager perceives his boss, (i.e. the measure E1/E2).
- the distance between present self and how the manager perceives his boss's boss, (i.e. the measure E1/E3).
- the distance between how the manager sees himself ideally and his view of his boss, (i.e. the measure E10/E2).
- the distance between how the manager sees himself ideally and his view of his boss's boss, (i.e. the measure E10/E3).

(As above, the smaller the number between the manager's different aspects of self and of his view of his bosses, then the closer or more similar he sees his values/constructs being held by his bosses).

Additional measures shown to be important by the pilot analysis, are as follows,

4) A measure indicating the extent to which an alienated organisation self (E12) is related to the notion of hard work.

- Negative E12 in relation to Component 1.

5) Other measures concerned with establishing the importance of hard work (C1) in a manager's construct system.

- C1 (hard working) in relation to Construct Variation.
- C1 (hard working) in relation to Component 1.

6) Measures of hard work.

- the external rating of hard work for managers.
- the self ratings of hard work.

(In both cases the smaller the number, the more hard working a manager was considered, or considered himself, to be).

The procedure has been to take a small group of managers with the shortest distance on each of the above measures and contrast them with

a group that has the longest distance on each measure, and to determine the statistical significance of the difference. Thus, for instance, a group high on self esteem, (a short distance on the measure E1/E10) would be contrasted with a group low on self esteem, (a long distance on the measure E1/E10). The number in each group depends on the number of managers who display extreme scores for each particular measure. Consequently, the number of managers in each group varies depending on the number of extreme scores, although the groups generally consist of 10 to 12 members.

Having selected the two groups displaying opposite scores on one measure, the distances for all the other element and construct measures outlined above are summated and the average is taken for each measure. The average score/distance for one group is then compared with the average for the other group on the same item. For instance, a group with a short on E1/E10, (high self esteem) in comparison with a group with a large difference on E1/E10, (low self esteem) may also have a short distance for E1/E12, (high organisation esteem) and also a low average external rating for hard work (i.e. they are hard working). If the other E1/E10 group also has short distances on these two measures (E1/E12 and hard work), then one might conclude that high or low self esteem (i.e. short or long E1/E10 scores) has no bearing on organisational esteem (E1/E12) or on hard work. If, on the other hand, the second E1/E10 group had a high average score for hard work (i.e. they were not very hard working) and the difference between the scores of the two groups was significant then, this might suggest that managers with short E1/E10 distances (i.e. with high self esteem) are hard working, and there might be some relationship between self esteem and hard work. For the most part, the external rating, rather than the self rating for hard work, has been emphasised in comparing items.

## Methodological Points

Before the results are discussed, a few techical points need mentioning. In the first place, as each individual grid has the same

kind and number of elements, and all have hard work as construct 1, it is possible, therefore, legitimately, to group individual grids for comparison on the items listed above.

Secondly, angular distances for constructs, and element distances, have been used because, as the GAP manual (1981) points out, these distances can be used to compare grids. It notes,

> 'In some contexts it is an advantage to consider the angular distances between constructs rather than their correlations; the average of a set of angles is itself an angle, whereas the average of a set of correlations is not itself a correlation'. The manual adds later that, 'distances (between elements) can be used for comparing grids like the angular distances (for constructs). The average distance between ... two elements could be used for comparing groups, without necessarily standardising all the other specifications of the experimental grids.'

Thirdly, in order to establish whether there are significant differences between the groups on the various items, the standard 'Student t' statistical test has been used. This is appropriate for samples of less than 30, and thus is applicable here.

## Analysis

# CHAPTER 8

# REPERTORY GRID ANALYSIS PART I

# GROUP ANALYSIS

## Introduction

This chapter explores the data from the Repertory Grid output of the 44 managers at Sandvik and Lansing Bagnall to look for common characteristics among the managers. A group analysis is adopted here to assess possible relationships between different self aspects and the tendency to work hard. The chapter broadly follows the framework of analysis outlined at the end of Chapter 7, and considers the different measures highlighted there and their significance.

## 1) Measures Concerned With The Way The Notion Of Hard Work Is Held In A Manager's Construct System

### a) Construct 1 (Hard Working) and the Present Self (E1)

The first two groups to be contrasted with each other, consist of a group composed of those managers with the shortest distances for construct 1, hard working (C1), in relation to present self (E1), (14 managers) as against a group with the longest distances on this measure (12 managers).

#### Element relationships

The results are presented in the tables following. The first table, (Table 8.1), shows the other element relationships displayed by the managers (Group 1) who had a short distance between construct 1, hard working (C1), and the present self (E1).

Mean element distances - Group 1

| Elements | Present Self E1 | Ideal Self E10 | Organisation Self E12 | Boss E2 | Boss's Boss E3 | |
|---|---|---|---|---|---|---|
| E1 | -- | .40 | .31 | .44 | .49 | Distances |
| E10 | .40 | --- | .50 | .55 | .57 | |
| E12 | .31 | .50 | --- | --- | --- | |
| E2 | .44 | .55 | --- | --- | --- | |
| E3 | .49 | .57 | --- | --- | --- | |

Table 8.1

From Table 8.1 one can see that the average distance for this group of managers on the measure present self (E1) and ideal self (E10) (i.e. E1/E10, the measure for self esteem) is .40. As the figure is fairly low this would suggest that these managers who hold the construct 'hard work' high in their construct system, also generally have high self esteem (indicated by the small numerical distance of .40). The score for the relationship between present self (E1) and organisation self (E12) (the measure of organisation self esteem) is .31, which indicates that the managers as a group are high on organisation self esteem. The score for E10/E12, the group's view of their ideal self in relation to their organisation self, is .50. The remaining scores indicate similarity or difference betweeen the group's present self (E1) and boss (E2) and boss's boss (E3), and also between ideal self (E10) and boss (E2) and boss's boss (E3) (for example, the distance between E1 and E2 is .44). These remaining scores, which are all below .60, show that as a group the managers generally feel their view of themselves is similar to those of their bosses.

As was argued in the last chapter, the implications of these scores may be better understood by using a comparison or benchmark. The above would seem to indicate that managers who hold hard work high in their construct system also have high self esteem (indicated by a low E1/E10 score). However, this would not seem to be particularly impor-

tant if managers who did not hold hard work high in their construct system also had high self esteem. It is only if there is a difference, and moreover a significantly large difference, between the two groups on a measure such as self esteem that one might conclude that there might be an association between holding the notion of hard work high in one's construct system and also having high self esteem.

The second group, in contrast to the first, is composed of managers who had a large distance between the construct hard work (C1) and present self (E1). Table 8.2 shows the distances between the other element relationships for this group.

Mean element distances - Group 2

| Elements | Present Self E1 | Ideal Self E10 | Organisation Self E12 | Boss E2 | Boss's Boss E3 | |
|---|---|---|---|---|---|---|
| E1 | -- | .60 | .45 | .56 | .79 | Distances |
| E10 | .60 | --- | .72 | .69 | .85 | |
| E12 | .45 | .72 | --- | --- | --- | |
| E2 | .56 | .69 | --- | --- | --- | |
| E3 | .79 | .85 | --- | --- | --- | |

Table 8.2

In this case the relationship between present self (E1) and ideal self (E10) is .60, which is greater than the E1/E10 score for the previous group (.40). This indicates that this group has slightly lower self esteem, (i.e. has a greater distance between present and ideal self) than the previous group.

The scores for each of the element relationships can be easily compared between the two groups by looking at Table 8.3.

Mean element distances - Groups 1 and 2

| Measure | Distances | |
|---|---|---|
| | Group 1 | Group 2 |
| (a) E1/E10 | .40 | .60 |
| (b) E1/E12 | .31 | .45 |
| (c) E10/E12 | .50 | .72 |
| (d) E1/E2 | .44 | .56 |
| (e) E1/E3 | .49 | .79 |
| (f) E10/E2 | .55 | .69 |
| (g) E10/E3 | .57 | .85 |

Table 8.3

The table shows that for all the element relationships, Group 1 have lower scores than Group 2. Thus, Group 1, as a group, see greater similarity between different aspects of themselves and also between themselves and their boss's, than do Group 2, (e.g. Group 1 perceive their present, E1, and ideal, E10, selves as similar or closer to each other than does Group 2).

However, not all the differences between these scores are statistically significant. Those which are significant are the differences between the scores for E1/E10 (i.e. .40 as against .60) and E10/E12 (.50 as against .72), both significant at the .05 level, and between E1/E3 (scores of .49 and .79) and E10/E3 (scores of .57 and .85), significant at the .01 level. Thus, the managers who hold the notion of hard work high in their construct system show a significant difference in comparison with those who hold it low in their construct system, in terms of their self esteem (E1/E10) and their ideal and organisational views of themselves (E10/E12), and a very significant difference in terms of how they see their present and ideal selves in relation to their boss's boss (E1/E3; E10/E3). These differences are shown in Table 8.4.

Significant item differences - Groups 1 and 2

| Measure | Distances | | Significance level |
|---|---|---|---|
| | Group 1 | Group 2 | |
| (a) E1/E10 | .40 | .60 | .05 |
| (b) E1/E12 | .31 | .45 | N/S |
| (c) E10/E12 | .50 | .72 | .05 |
| (d) E1/E2 | .44 | .56 | N/S |
| (e) E1/E3 | .49 | .79 | .01 |
| (f) E10/E2 | .55 | .69 | N/S |
| (g) E10/E3 | .57 | .85 | .01 |

Table 8.4

These differences can be explained visually as in Diagram 8.1. The two axes represent the range of scores for the two groups for each relationship. (Group 2 is represented by the vertical axis, Group 1 by the horizontal). The two scores for the two groups for each element relationship are plotted and shown by their respective letter, (e.g. point A on the diagram is where the scores meet for E1/E10, .40 and .60: point B where the scores for E1/E12 meet, etc.). If the scores for the two groups for an element relationship were identical then the point would fall on the straight diagonal line at the spot indicated by the lower-case letter. The distance that each point is away from the diagonal line gives some idea, visually, of the difference between the two groups for each element relationship. It can be seen, for instance, that the scores for Group 2 in terms of the relationships, present self and organisation self (E1/E12), point B; present self and boss (E1/E2), point D; and ideal self and boss (E10/E2), point F, are not too distant from the scores of Group 1 (points b,d, and f). The other relationships, indicated by points A-a, E-e, C-c and G-g, are much greater and extend north of the broken diagonal line. This has been included to indicate the statistically significant differences (i.e. those north of the broken line). Additionally, those differences that are significant have the names of the relationships written on the diagram, except for the measure (in this case, C1/E1, Diagram 8.2) used to divide the groups. The diagram

C1/E1

## ELEMENT DIFFERENCES

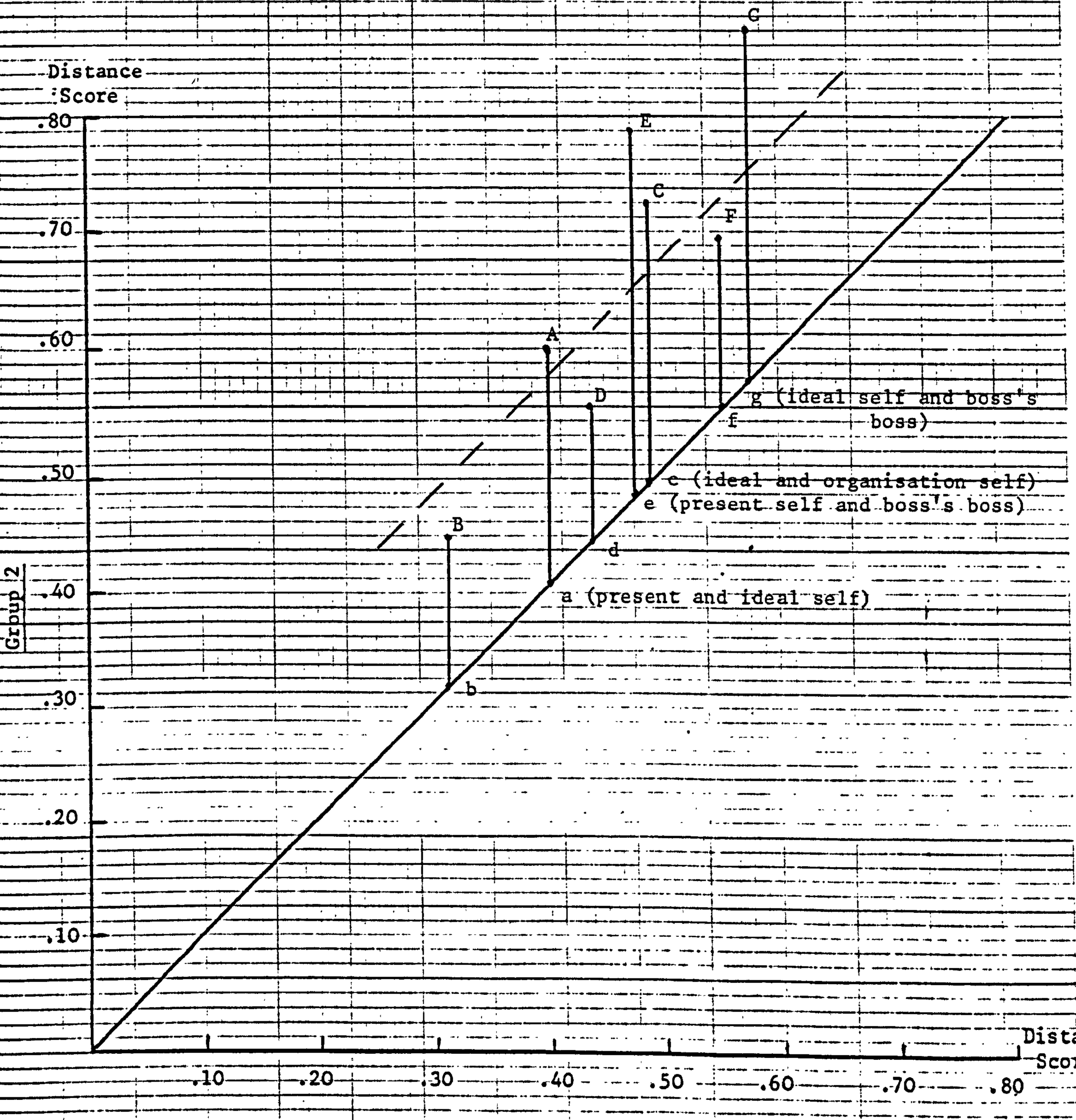



Diagram 8.1

shows that all the element relationships for Group 2 are more distant than for Group 1. If a relationship was closer for Group 2, than Group 1, (i.e. a smaller score), then clearly the Group 2 point would fall below the straight diagonal line. Whether or not this was important would depend on which relationship was closer in relation to which measure the groups were selected by, and would be discussed in the text.

## Construct/element relationships

The next table (Table 8.5) is concerned with the contrast between how the two groups of managers, divided, in the first place, in terms of how they see the construct 'hard work' (C1) in relation to their present self (E1), also see this construct (C1) in relation to their ideal (E10) and organisation (E12) selves.

## Construct 1 scores on self elements - Groups 1 and 2

| Self Elements | Distances | |
|---|---|---|
| | Group 1 | Group 2 |
| | C1 | C1 |
| (h) E1 | 26.19 | 77.13 |
| (i) E10 | 34.15 | 60.55 |
| (j) E12 | 41.30 | 84.71 |

Table 8.5

Table 8.5 shows the average distance for the construct 'hard working' (C1) in relation to the three self elements, E1, E10, and E12, for the two groups. The scores for Group 1 are much lower than those for Group 2. As the two groups were selected for their short and long distances on the measure C1/E1, the difference in the two scores, (26.19 for Group 1, and 77.13 for Group 2) is hardly surprising. Nevertheless, the differences between the two groups on the other scores (C1/E10, 34.15 as against 60.55, and C1/E12, 41.30 as against 84.71) are significantly different at the .01 level.

Again, as with the element relationships, a diagram (Diagram 8.2) can be produced showing these differences visually. The differences between the groups for each construct/element relationship is shown to be quite large. The difference between the two groups for the relationship between hard work and the ideal self (C1/E10) is not as great as for the other relationships (C1/E1 and C1/E12). However, their position north of the broken diagonal line shows them to be statistically significantly different.

One additional score that is important to the analysis, is the average external rating for hard work for the two groups. In this case, the average for Group 1 (on a range from 1, most hard working, to 7, least hard working) is 2.07. For Group 2 it is 3.08. As the smaller the score, the more hard working the group is considered to be, then Group 1 are rated, on average, as more hard working than Group 2. The important point is that the difference between these two scores is significant at the .01 level, indicating that managers who hold the notion of hard work high in their construct system are, in fact, seen as harder working than those who do not value the notion of hard work. (The self ratings for hard work have not been compared in this case, as the groups are composed of managers with contrasting distances of hard work (C1) in relation to the present self (E1), which is itself a reflection of their own self rating).

The results of the contrast between the two groups can be drawn together for simplicity as follows,

C1/E1

CONSTRUCT/ELEMENT DIFFERENCES

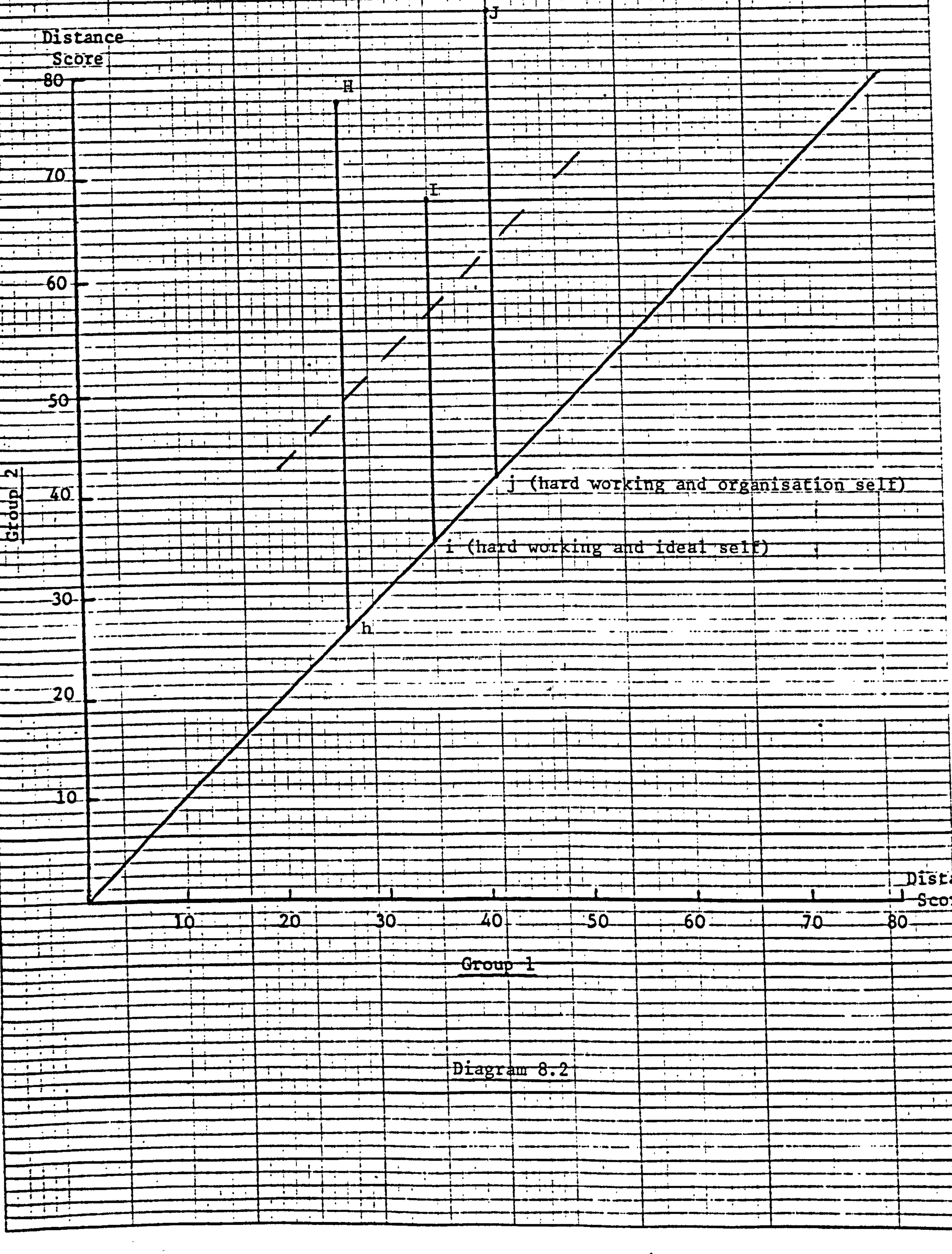



Diagram 8.2

Significant item differences for groups on C1 and E1

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | .05 |
| (b) E1/E12 | (present and organisation self) | N/S |
| (c) E10/E12 | (ideal and organisation self) | .05 |
| (d) E1/E2 | (present self and boss) | N/S |
| (e) E1/E3 | (present self and boss's boss) | .01 |
| (f) E10/E2 | (ideal self and boss) | N/S |
| (g) E10/E3 | (ideal self and boss's boss) | .01 |
| (h) C1/E1 | (hard working and present self) | --- |
| (i) C1/E10 | (hard working and ideal self) | .01 |
| (j) C1/E12 | (hard working and organisation self) | .01 |
| Hard Work: External Rating | | .01 |

Table 8.6

Thus, managers who hold the construct of hard work high in their present self construct system in contrast to managers who do not value hard work, also hold the notion of hard work high in relation to their ideal and organisation selves. These managers also had statistically close views of their present and ideal selves, and of their ideal and organisation selves. They also see their present and ideal selves as much more similar to their boss's boss than the group who hold hard work low in their construct system. They also work harder.

This would seem to suggest that if a manager values the concept of hard work, there is a general tendency to translate this into action and be hard working. Of course, it is difficult to say from this finding whether the managers tended to be hard working because they valued hard work, or saw hard work as important because they were hard working, or for another reason. Nevertheless, the fact they value hard work in relation to their ideal selves would seem to indicate that the notion is of value in itself, and perhaps something worth

striving for or developing. But it may also have something to do with the coincidence of view between themselves and their boss's boss. It may be that they value hard work because they believe the person responsible for their career does also.

b) Construct 1 (Hard Working) and the Ideal Self (E10)

In this case a group of 11 managers with the shortest distances for C1 (hard working) in relation to E10 (ideal self) was compared with a group of 10 managers with the longest distance on this item. A similar set of tables has been produced for this measure as for the last.

However, as what is important is not so much the actual numbers, but whether there are significant differences between the groups in terms of the various measures outlined above, the tables have been confined to the appendices (in this case, appendix 8.1), and only summaries of significance levels, and the diagrams displaying the differences between the groups on the various relationships, have been retained.

The group of managers who placed hard work high in relation to their ideal self, as against those who placed it low in terms of their ideal self, also had shorter distances than the bottom group on all the other items. The differences that are significant are shown in Table 8.7.

Significant item differences for groups on C1 and E10

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | N/S |
| (b) E1/E12 | (present and organisation self) | N/S |
| (c) E10/E12 | (ideal and organisation self) | N/S |
| (d) E1/E2 | (present self and boss) | .05 |
| (e) E1/E3 | (present self and boss's boss) | .01 |
| (f) E10/E2 | (ideal self and boss) | N/S |
| (g) E10/E3 | (ideal self and boss's boss) | .01 |
| (h) C1/E1 | (hard working and present self) | .01 |
| (i) C1/E10 | (hard working and ideal self) | --- |
| (j) C1/E12 | (hard working and organisation self) | N/S |
| Hard Work: External Rating | | N/S |

Table 8.7

It is interesting that there is no significant difference between the two groups in terms of hard work. Thus, it would seem that merely because one values hard work as an ideal notion it does not necessarily mean one will actually be hard working. There is some similarity with the last analysis. Again, the top group of managers (Group 1) see their present and ideal selves similar to their boss's boss. They also value the notion of hard work highly in relation to their present selves, but there is no significant difference between the groups in how they hold hard work in relation to their organisation selves. It may be that the notion of hard work may have to be fully integrated into all aspects of the self perception before it is distinctly translated into a tendency to behave in that way.

C1/E10

## ELEMENT DIFFERENCES

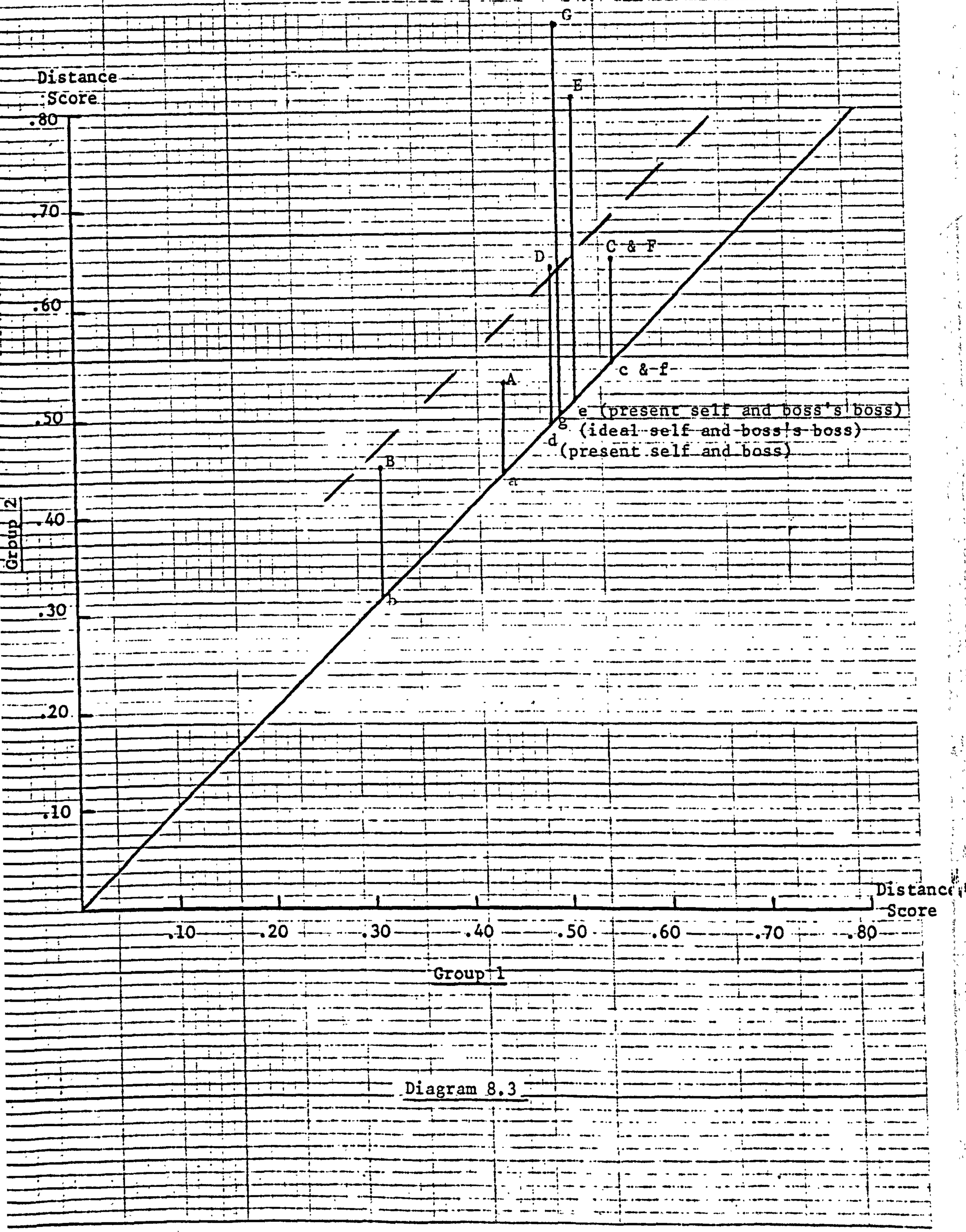



Diagram 8.3

## CONSTRUCT/ELEMENT-DIFFERENCES

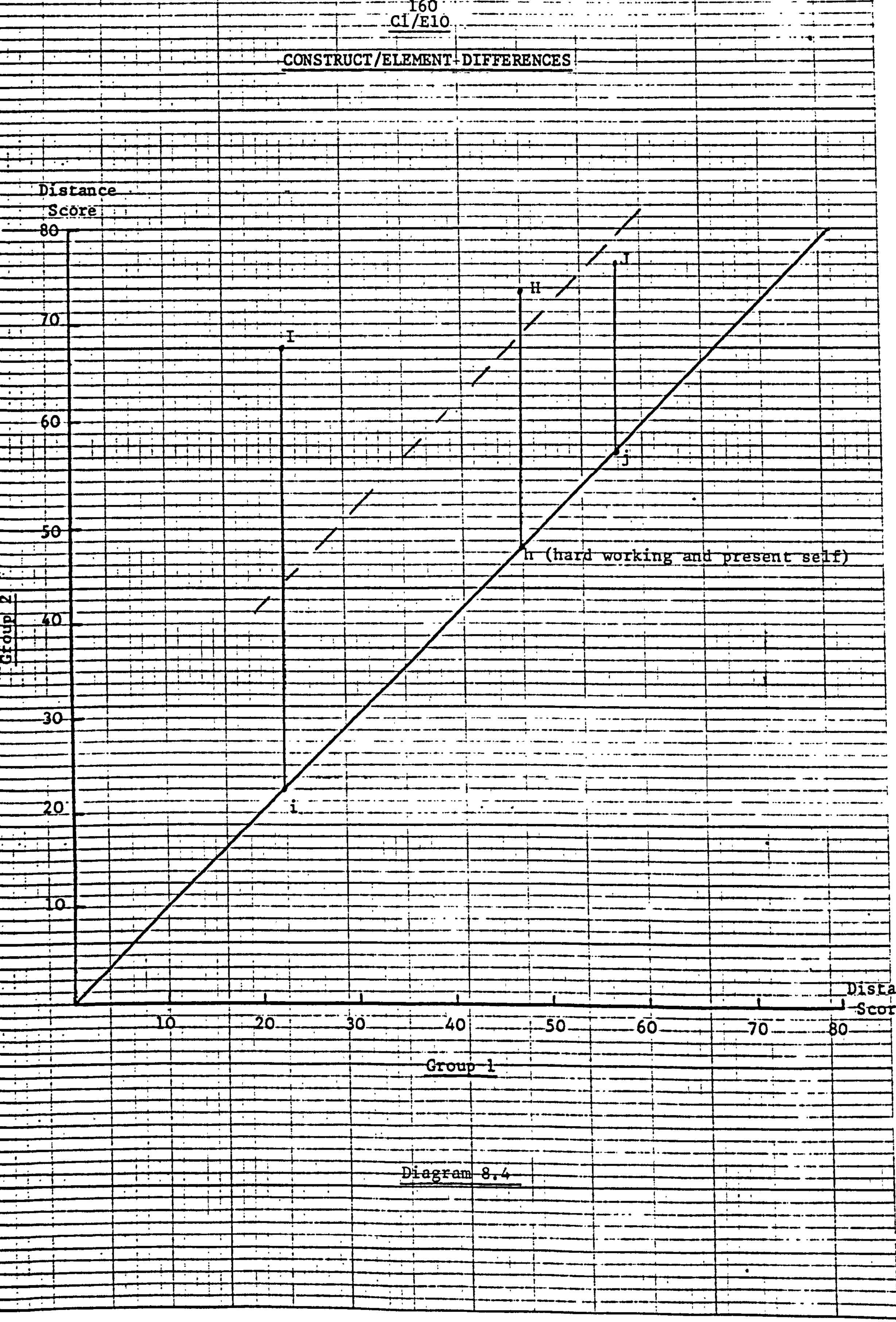



Diagram 8.4

c) Construct 1 (Hard Working) and the Organisation Self (E12)

In this case a group with the shortest distance for C1 (hard working) in relation to the organisation self (E12) (10 managers) was compared with a group with the longest distance (9 managers). Again the pattern noted above in the previous two cases is also evident between these two groups (appendix 8.2). All the distances are lower for the first group in relation to the second, (Diagrams 8.5 and 8.6). The significant differences between the two groups are shown in Table 8.8.

Significant item differences for groups on C1 and E12

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | N/S |
| (b) E1/E12 | (present and organisation self) | .01 |
| (c) E10/E12 | (ideal and organisation self) | .01 |
| (d) E1/E2 | (present self and boss) | .01 |
| (e) E1/E3 | (present self and boss's boss) | .01 |
| (f) E10/E2 | (ideal self and boss) | .05 |
| (g) E10/E3 | (ideal self and boss's boss) | N/S |
| (h) C1/E1 | (hard working and present self) | .01 |
| (i) C1/E10 | (hard working and ideal self) | .05 |
| (j) C1/E12 | (hard working and organisation self) | --- |
| Hard Work: External Rating | | .01 |

Table 8.8

The very significant difference between the two groups in terms of their external rating for hard work suggests that managers who hold hard work high in relation to their organisation self will be harder working than those who do not. These managers also hold hard work high in relation to their present selves (C1/E1) and their ideal selves (C1/E12). This is very similar to the first set of results

C1/E12

## ELEMENT DIFFERENCES

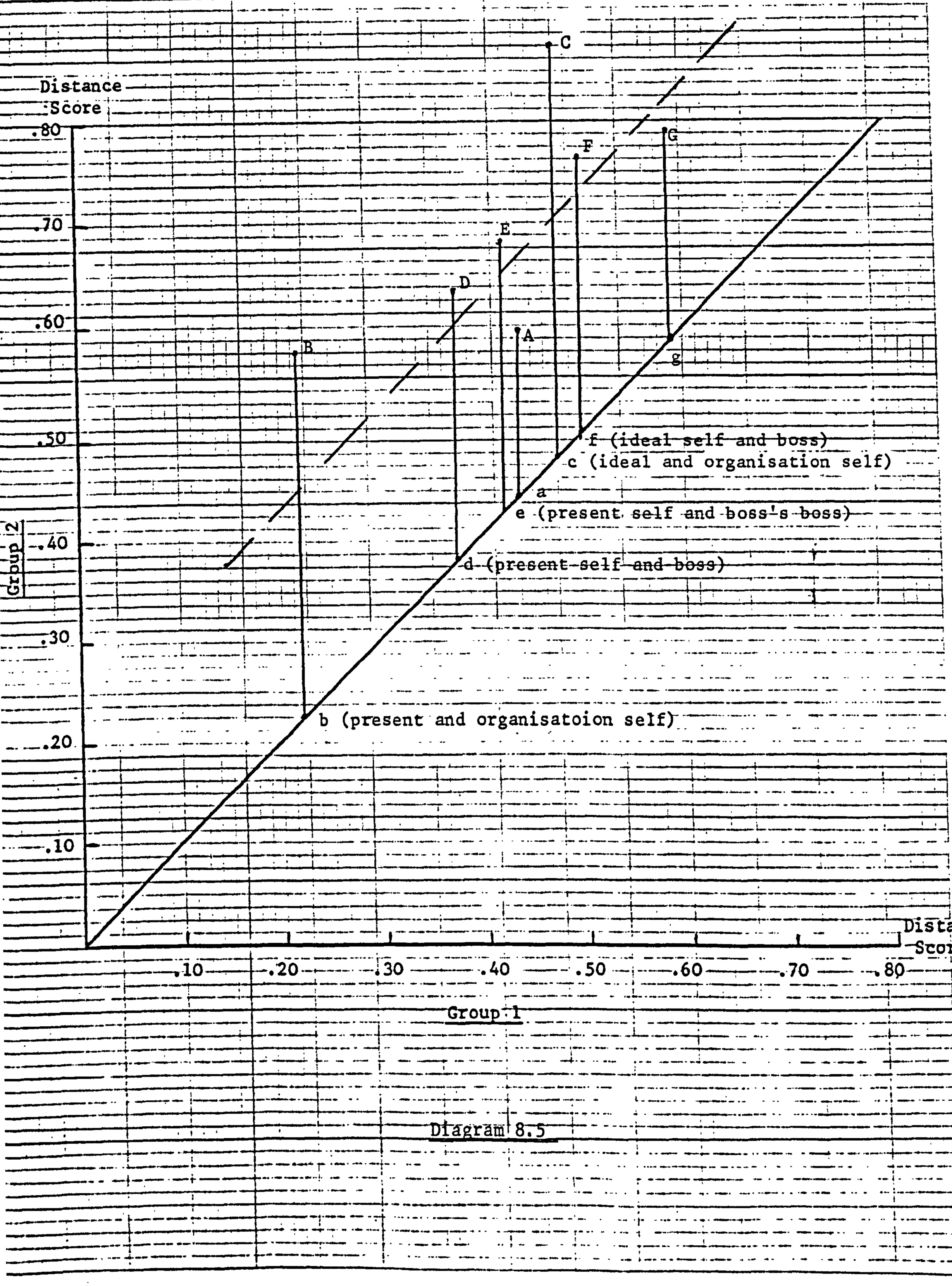



Diagram 8.5

## CONSTRUCT/ELEMENT DIFFERENCES

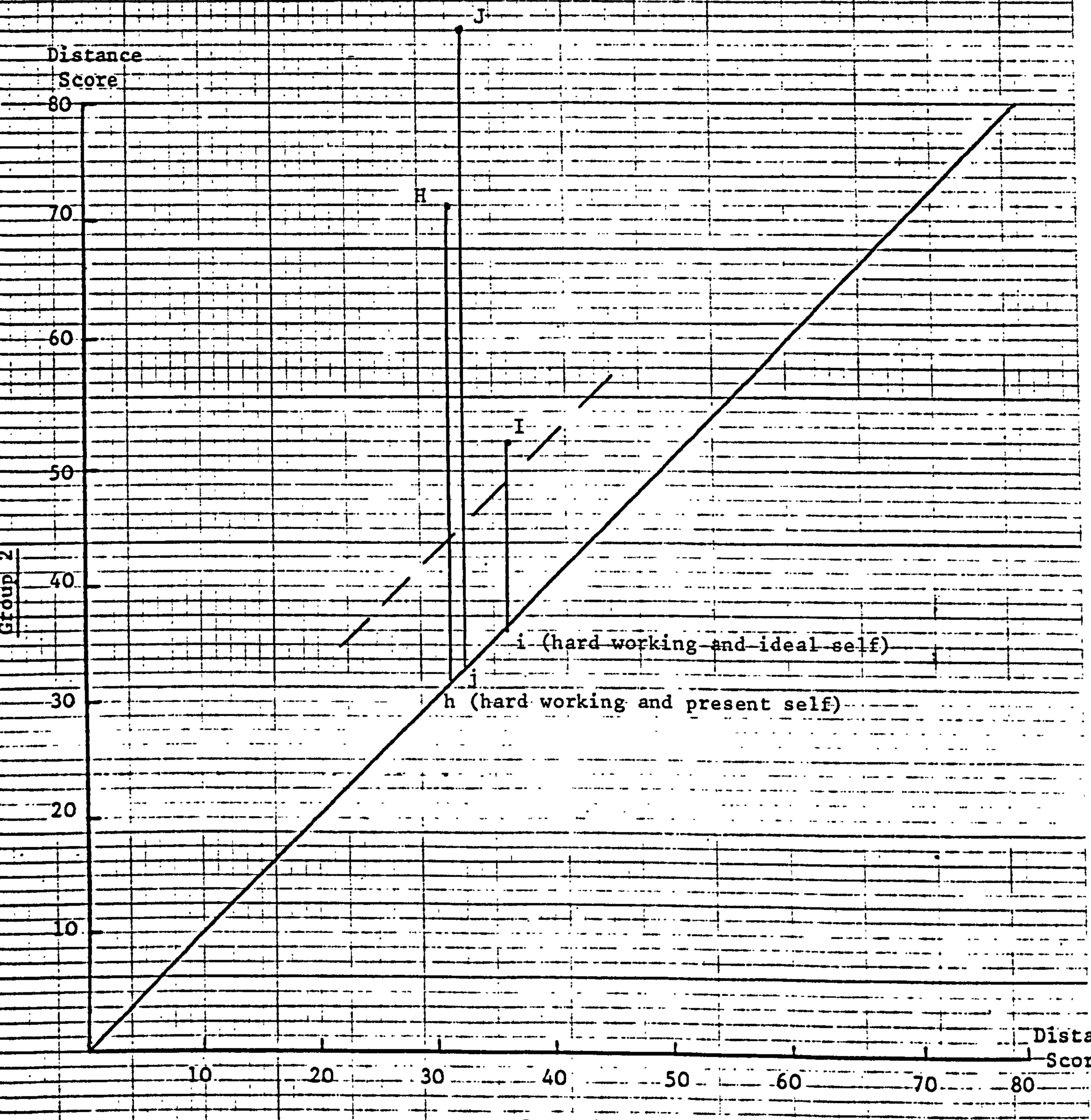



Diagram 8.6

(analysis a, C1 and E1) where there was also a very significant difference between the two groups considered there, in terms of their hard work rating. There were also significant differences on the other measures of C1/E10 and C1/E12. In view of this and in view of the second analysis, (analysis b), where there was not a significant difference between the two groups in terms of hard work, and also no significant difference on the item C1/E12, it would seem possible that whether one has a tendency to work hard or not is related to how one values hard work in relation to all aspects of oneself. It would seem that there is an association between those who fully integrate the concept of hard work into their value system and the behaviour of hard work. Two items seem to be particularly important, C1/E1 and C1/E12. But of these two, the critical item may be C1/E12, the measure where there was no significant difference between the groups in analysis b, and also no difference in their rating for hard work.

It is less easy to come to any distinctive conclusions with regard to the element relationships. Nevertheless, in all three analyses the relationship between present self (E1) and boss's boss (E3) has been significantly closer (p=.01) for the top (Group 1) as against the bottom groups (Group 2). It would seem that the tendency to work hard may not only be related to how one holds the concept of hard work in relation to one's self aspects, but also how close one sees the values/constructs one holds in relation to the boss who has control over one's career. Whether an individual works hard or not may depend not only on his/her values, but whether those values find sympathy with a significant organisational other.

2) Measures Concerned With The Degree To Which Managers' Views Of Their Present, Ideal And Organisation Selves Are Similar To Each Other

The results of the three measures in this category will be presented first and an assessment of the results will be made on the three together at the end of the section.

d) Distance Between the Present Self (E1) and Ideal Self (E10)

In this case a group of 12 managers with the shortest distance between their present (E1) and ideal (E10) selves was compared with a group of 12 managers having the longest distance. The distances for all the items are lower for the group with the shortest E1 and E10 distance (appendix 8.3). The significant differences between the two groups are shown in Table 8.9.

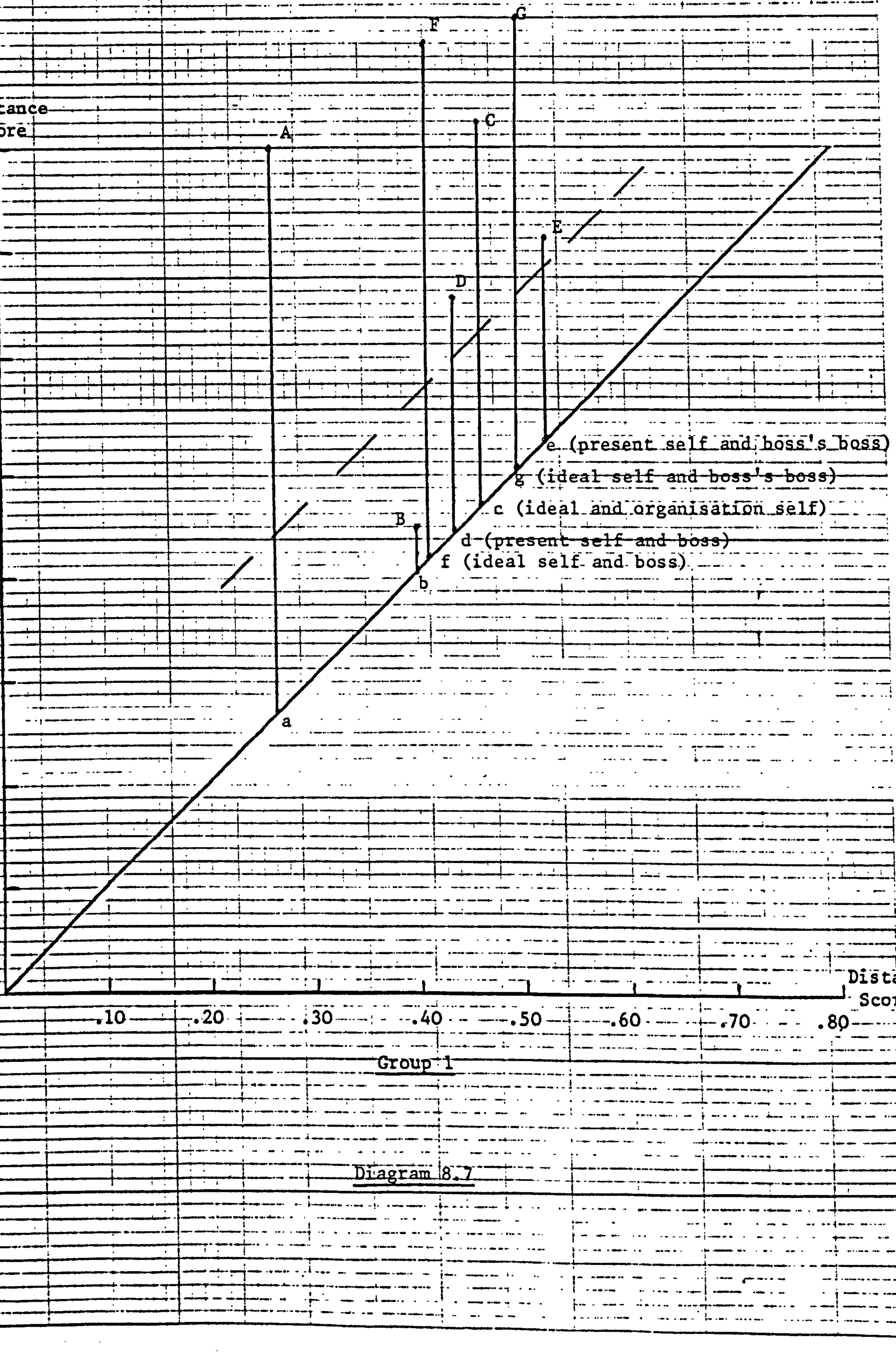
Significant item differences for groups on E1 and E10

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | --- |
| (b) E1/E12 | (present and organisation self) | N/S |
| (c) E10/E12 | (ideal and organisation self) | .01 |
| (d) E1/E2 | (present self and boss) | .05 |
| (e) E1/E3 | (present self and boss's boss) | .05 |
| (f) E10/E2 | (ideal self and boss) | .01 |
| (g) E10/E3 | (ideal self and boss's boss) | .01 |
| (h) C1/E1 | (hard working and present self) | .01 |
| (i) C1/E10 | (hard working and ideal self) | N/S |
| (j) C1/E12 | (hard working and organisation self) | .05 |
| Hard Work: Self Rating | | .01 |
| Hard Work: External Rating | | N/S |

Table 8.9

E1/E10

## ELEMENT DIFFERENCES




Group 1

Diagram 8.7

E1/E10

## CONSTRUCT/ELEMENT DIFFERENCES

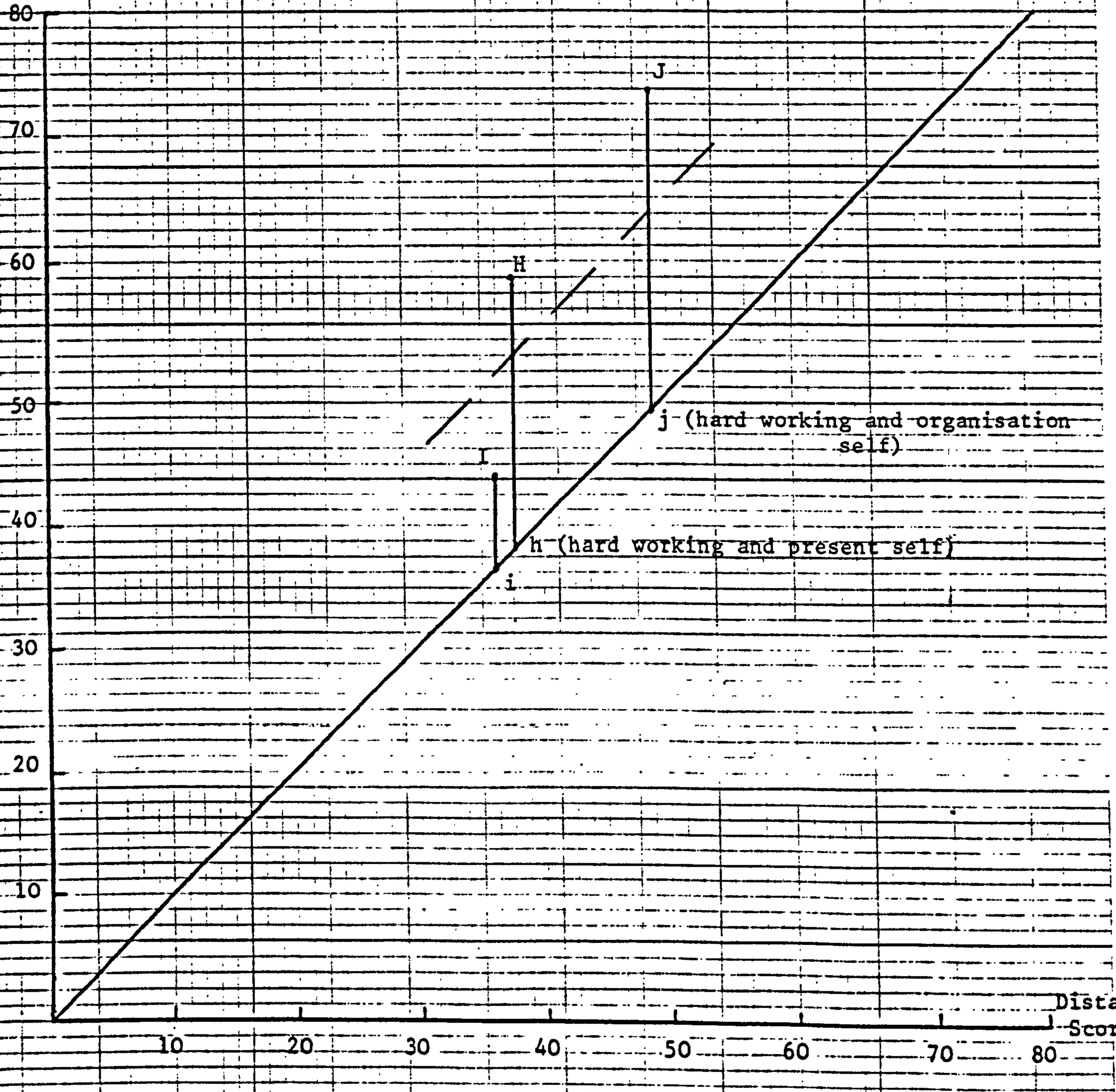



Diagram 8.8

e) Distance Between the Present Self (E1) and the Organisation Self (E12)

A comparison of two groups scoring high and low in relation to E1 and E12 shows the group with the smaller average E1 and E12 distance also has lower distances for all the other construct and element items, (appendix 8.4). Significant differences between the two groups are indicated in Table 8.10.

Significant item differences for groups on E1 and E12

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | N/S |
| (b) E1/E12 | (present and organisation self) | --- |
| (c) E10/E12 | (ideal and organisation self) | .01 |
| (d) E1/E2 | (present self and boss) | .05 |
| (e) E1/E3 | (present self and boss's boss) | N/S |
| (f) E10/E2 | (ideal self and boss) | .05 |
| (g) E10/E3 | (ideal self and boss's boss) | N/S |
| (h) C1/E1 | (hard working and present self) | .01 |
| (i) C1/E10 | (hard working and ideal self) | N/S |
| (j) C1/E12 | (hard working and organisation self) | .05 |
| Hard Work: Self Rating | | N/S |
| Hard Work: External Rating | | .05 |

Table 8.10

E1/E12

## ELEMENT DIFFERENCES

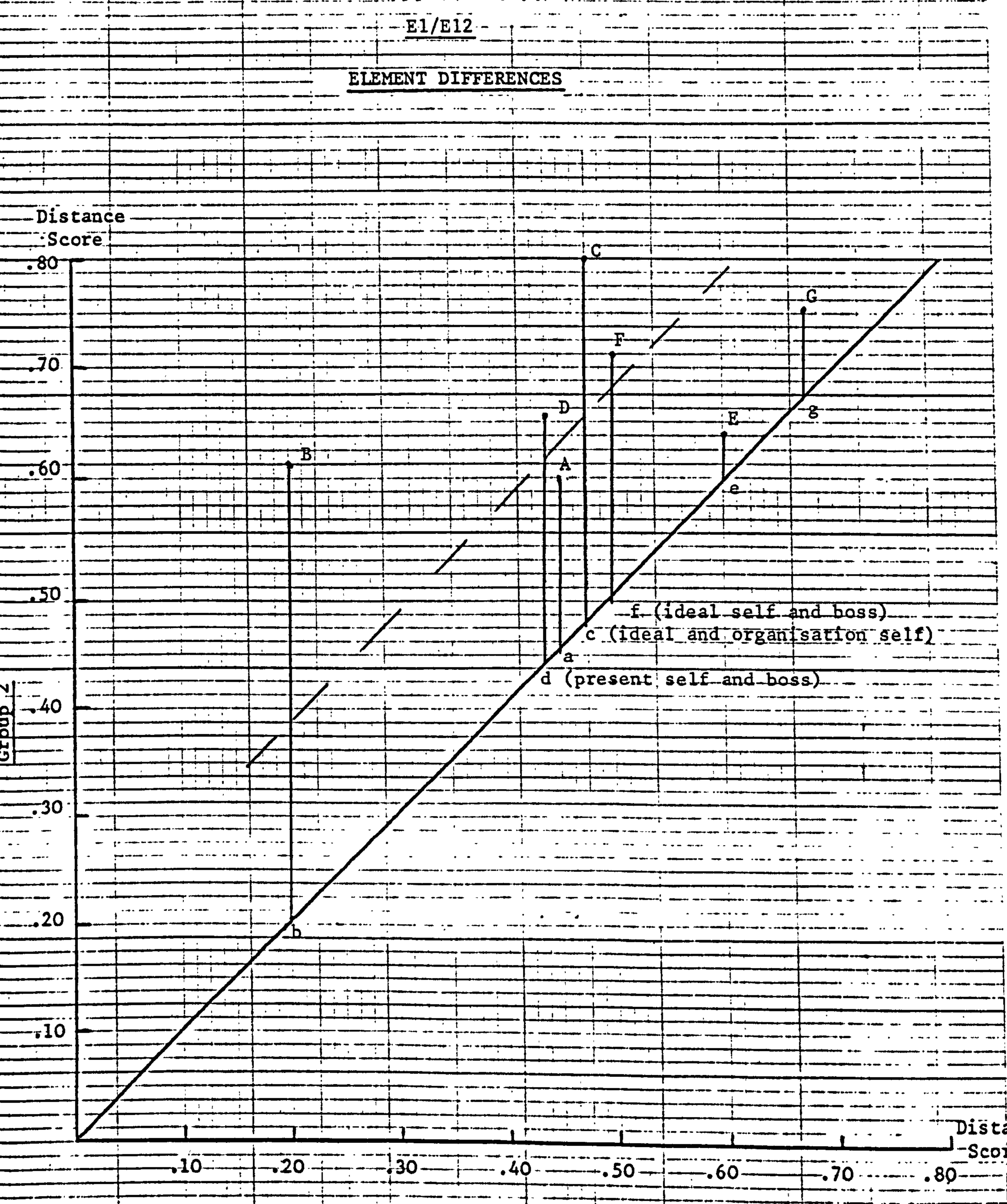



Diagram 8.9

E1/E12

CONSTRUCT/ELEMENT DIFFERENCES

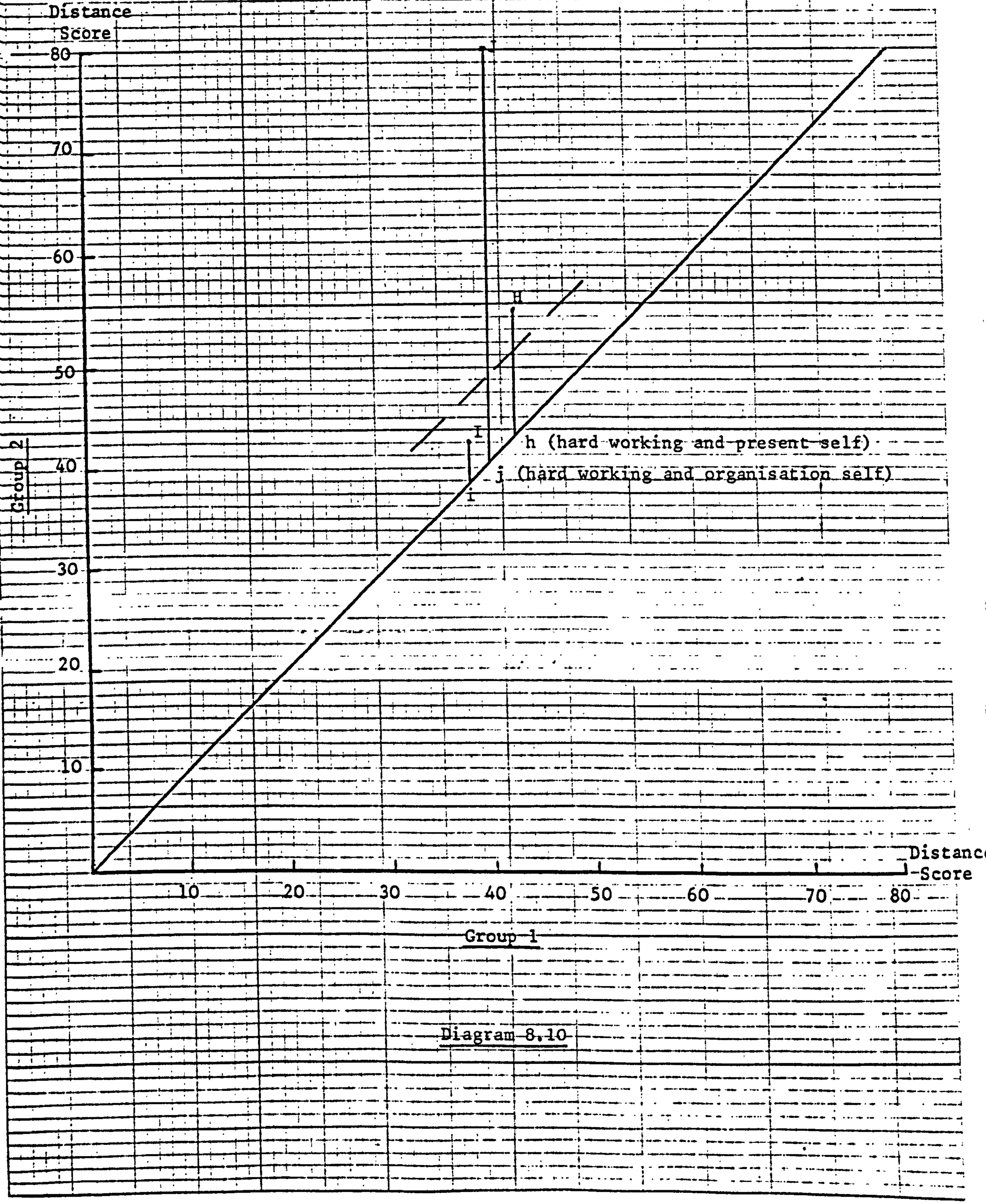



Diagram 8.10

f) Distance Between the Ideal Self (E10) and the Organisation Self (E12)

In this case 14 managers with the shortest distances for the ideal and organisation self relationship (E10 and E12) were compared with 13 managers with the longest distances on this item. Again the distances on all the items were shorter for the first group, (appendix 8.5). Significant differences were as shown in Table 8.11.

Significant item differences for groups on E10 and E12

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | .01 |
| (b) E1/E12 | (present and organisation self) | .01 |
| (c) E10/E12 | (ideal and organisation self) | --- |
| (d) E1/E2 | (present self and boss) | .05 |
| (e) E1/E3 | (present self and boss's boss) | .01 |
| (f) E10/E2 | (ideal self and boss) | .01 |
| (g) E10/E3 | (ideal self and boss's boss) | .05 |
| (h) C1/E1 | (hard working and present self) | .01 |
| (i) C1/E10 | (hard working and ideal self) | N/S |
| (j) C1/E12 | (hard working and organisation self) | .01 |
| Hard Work: Self Rating | | .05 |
| Hard Work: External Rating | | N/S |

Table 8.11

## ELEMENT DIFFERENCES

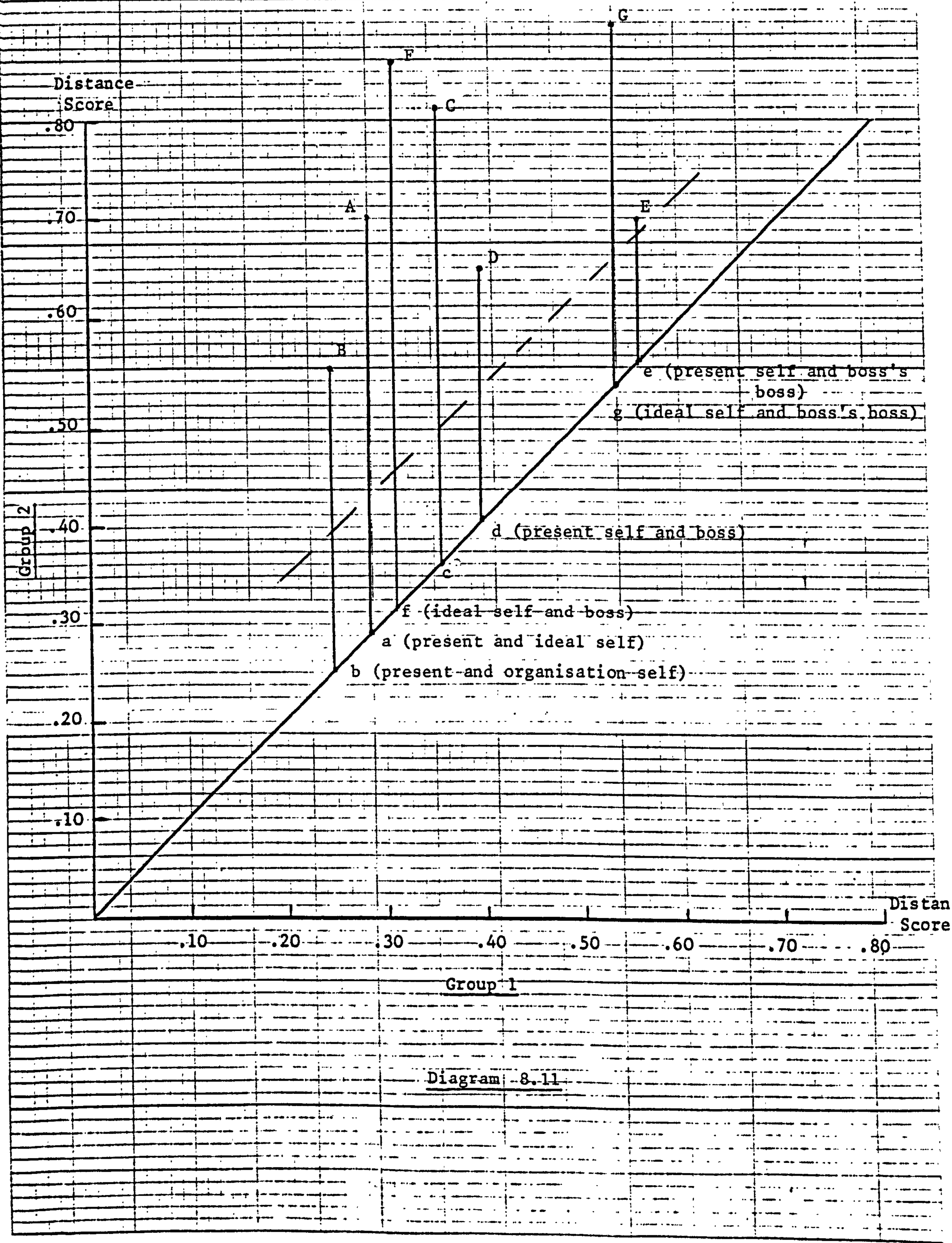



Diagram 8.11

E10/E12

## CONSTRUCT/ELEMENT DIFFERENCES

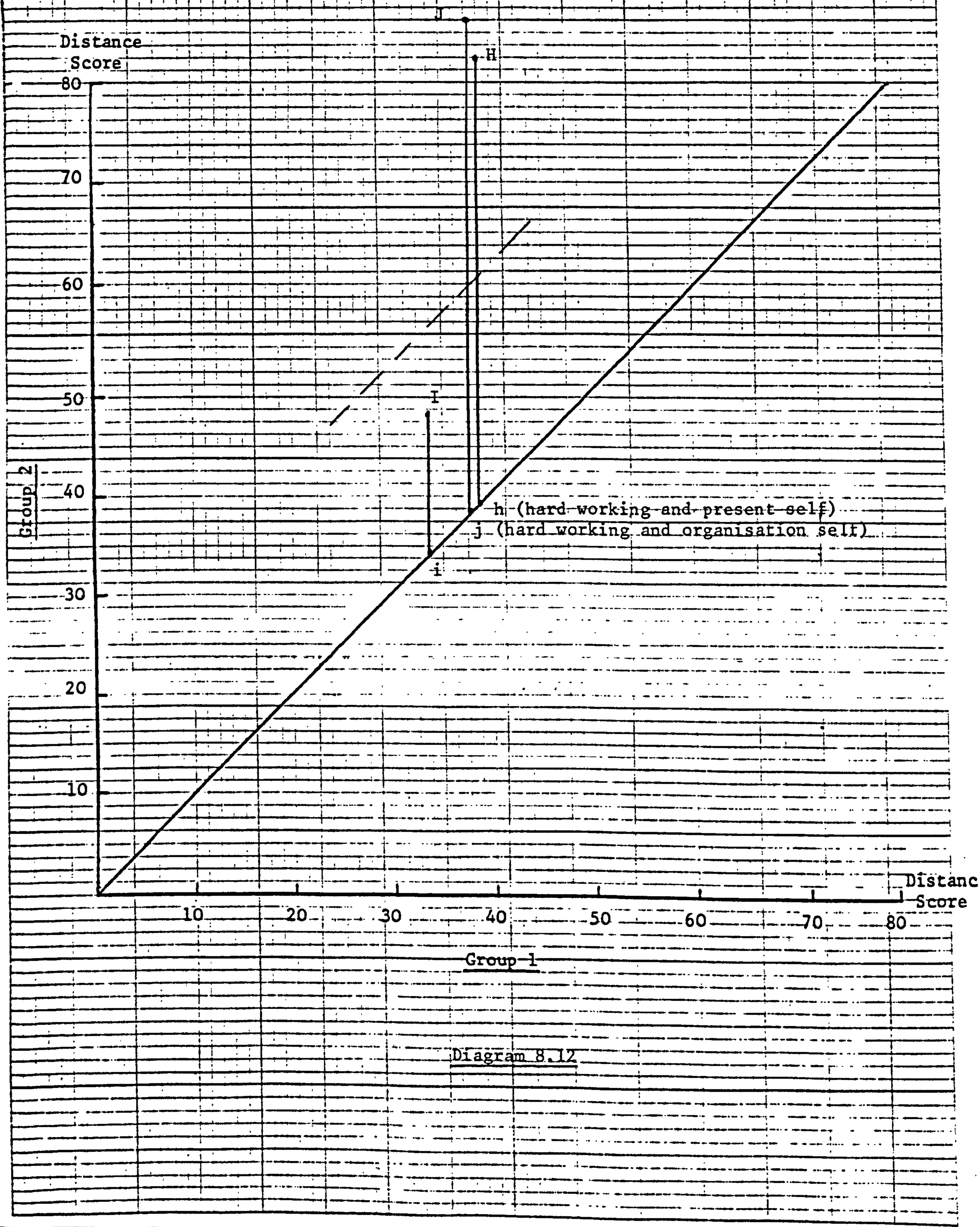



Diagram 8.12

Assessment

The major conclusion from these three comparisons as a whole is that whether a manager sees different aspects of himself in close proximity to each other or not, does not seem to be particularly related to whether he works hard or not. A close present and ideal self (analysis d) view of the world (high self esteem), or a close ideal and organisation self (analysis f) view of the world would not seem to be associated with a significant tendency to work harder than those who do not have this integration. However, in both these analyses (d and f) there was a significant difference in the self ratings for hard work, which indicates that the top managers (Group 1) on these items saw themselves as hard working. Even so, this may be due not so much to the notion that managers at one with themselves think they work hard, but that managers not at one with themselves, with big differences in how they perceive themselves, believe they do not work hard. A number of writers have argued that some people low on self esteem tend to see themselves as without value, or with a tendency to appraise themselves negatively. The above may be symptomatic of that. Certainly, on these two items (analysis d, E1 and E10, and analysis f, E10 and E12) the fact that there is no significant difference in the external hard work rating of the two groups would suggest that the bottom groups (Group 2) just see themselves, rather than actually are, less hard working.

On one measure (analysis e, present, E1, and organisation, E12, self), however, there was a significant difference between the two groups in terms of how they were externally rated for hard work. There would seem to be a relationship between a lack of hard work and managers who see a big discrepancy between themselves and how the organisation sees them. This might be because they feel misunderstood, and one might be less keen to work hard in circumstances where one feels one is regarded less than one actually is. An alternative explanation is that, in fact, they are not unconsciously lazy, but the low organisational projection that the managers know they have is translated into a low external hard work rating. The fact that there is no difference

between the two groups in terms of their self assessment of hard work indicates that the bottom group do not feel they are, in reality, generally idle.

There is also some ambiguity in these results. The position of hard work in relation to the aspects of self (C1/E1, C1/E10, C1/E12) for the three sets of analyses, is similar. All three show significant differences in hard work rating for C1/E1, and C1/E12, but not C1/E10. On the reasoning of the analyses of the previous group comparisons, the fact that the top groups (Group 1) in all the three cases here hold the notion of hard work higher in relation to both their present and organisation selves, one would expect a significant difference in their tendency to work hard. One explanation why this is not the case, may be because, as was also suggested in the last section, the notion of hard work may have to be valued in relation to all aspects of the self, (present, ideal and organisation self), before there is any strong likelihood that it may be associated with a behavioural tendency.

If we turn to the element items, it is noticeable that the managers in analysis f (E10 and E12) who report a close similarity between the ideal and organisation selves, show significant differences from the second, or bottom groups, in the integration of the other aspects of self and in how they see themselves and their bosses. This, for the most part, is also true of managers high on self esteem (E1 and E10, analysis d). This may indicate that integration of the self on one dimension may also mean self integration on other dimensions (or at least integration of E1 and E10, and E10 and E12). This self integration may also affect how one sees oneself in relation to bosses. It is possible that people with well integrated selves, at work, may see their bosses as being similar to them. Being 'content' with oneself may make one content with others. But, of course, the converse may also be true, and possibly more likely. It may be that because an individual feels that he and his boss have similar outlooks, he feels at one with himself.

However, Analysis e, concerned with the similarity of present and organisation self (E1 and E12) does not seem to show the above pattern. It may be easier here to think in terms of the second, or bottom group of managers, those who see a big discrepancy between their present and organisation selves. The results indicate that a discrepancy between present and organisation selves does not mean that the managers will necessarily have low self esteem (i.e. a long E1/E10 distance). This is supported by the results for the E1 and E10 measure (analysis d) which shows that having a wide discrepancy between present and ideal selves (low self esteem) does not necessarily mean that a manager will have a wide discrepancy between present and organisation selves (i.e. that he will have low organisation esteem). This would seem to suggest that these two concepts, E1/E10 (self esteem) and E1/E12 (organisation esteem) are different from each other and affected by different things. They would also seem to be associated with different relationships between views of the self and views of one's boss's boss. It would not seem to be the case from analysis e (E1 and E12) that having a close present self and organisation self integration means that one feels greater self proximity to one's boss's boss than if one's present and organisation selves are very much apart. As the organisation self is related to how an individual thinks he is seen by a significant organisational other, which is often his boss's boss, the notion is too simple that if he sees himself as similar in his values to his boss's boss he will have a close organisation self integration. It seems from the results above, that a manager may well see his values not greatly different from his boss's boss, but he can still have a large present self/organisation self discrepancy. Merely being dissimilar in nature to one's bosses, then, is not the only basis or necessarily the main one for the feeling that one's organisation self image is very different from one's image of present self.

## 3) Measures Concerned With Aspects Of The Self In Relation To Supervisors

Again, the results of the four self/supervisor measures will be presented and an assessment made of all the results at the end of the section.

### g) Present Self (E1) and the Managers' Boss (E2)

In this case, a comparison was made between a group of 11 managers with a short distance between present self and their boss (E1 and E2) and a group of 11 with long distances on this item. The top group had shorter distances on all the items (appendix 8.6). Significant differences between the groups on the other measures are shown in Table 8.12.

Significant item differences for groups on E1 and E2

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | .01 |
| (b) E1/E12 | (present and organisation self) | N/S |
| (c) E10/E12 | (ideal and organisation self) | N/S |
| (d) E1/E2 | (present self and boss) | --- |
| (e) E1/E3 | (present self and boss's boss) | .01 |
| (f) E10/E2 | (ideal self and boss) | .01 |
| (g) E10/E3 | (ideal self and boss's boss) | .05 |
| (h) C1/E1 | (hard working and present self) | .01 |
| (i) C1/E10 | (hard working and ideal self) | .05 |
| (j) C1/E12 | (hard working and organisation self) | .01 |
| Hard Work: Self Rating | | N/S |
| Hard Work: External Rating | | .05 |

Table 8.12

E1/E2

## ELEMENT DIFFERENCES

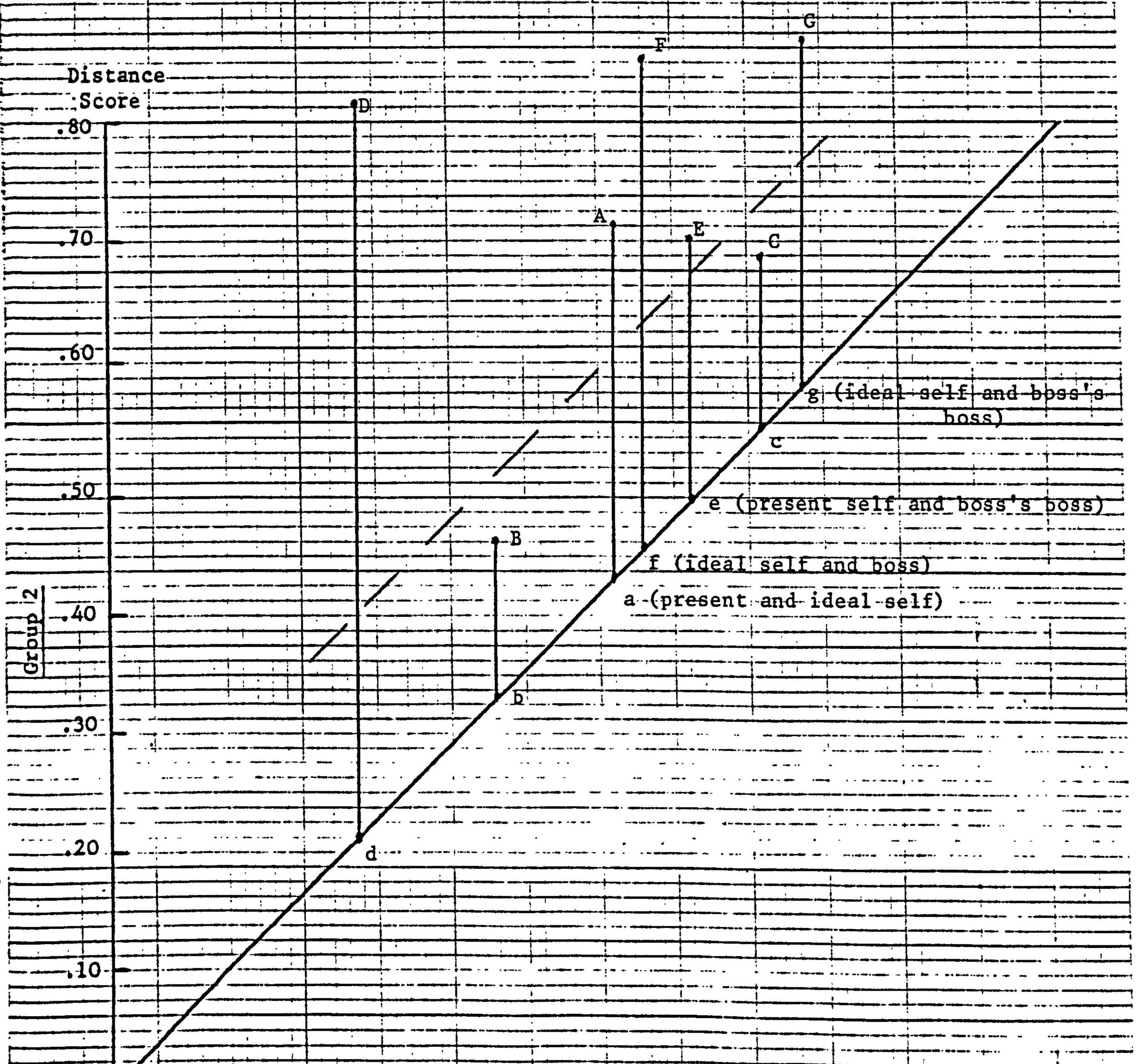



Diagram 8.13

## CONSTRUCT/ELEMENT DIFFERENCES

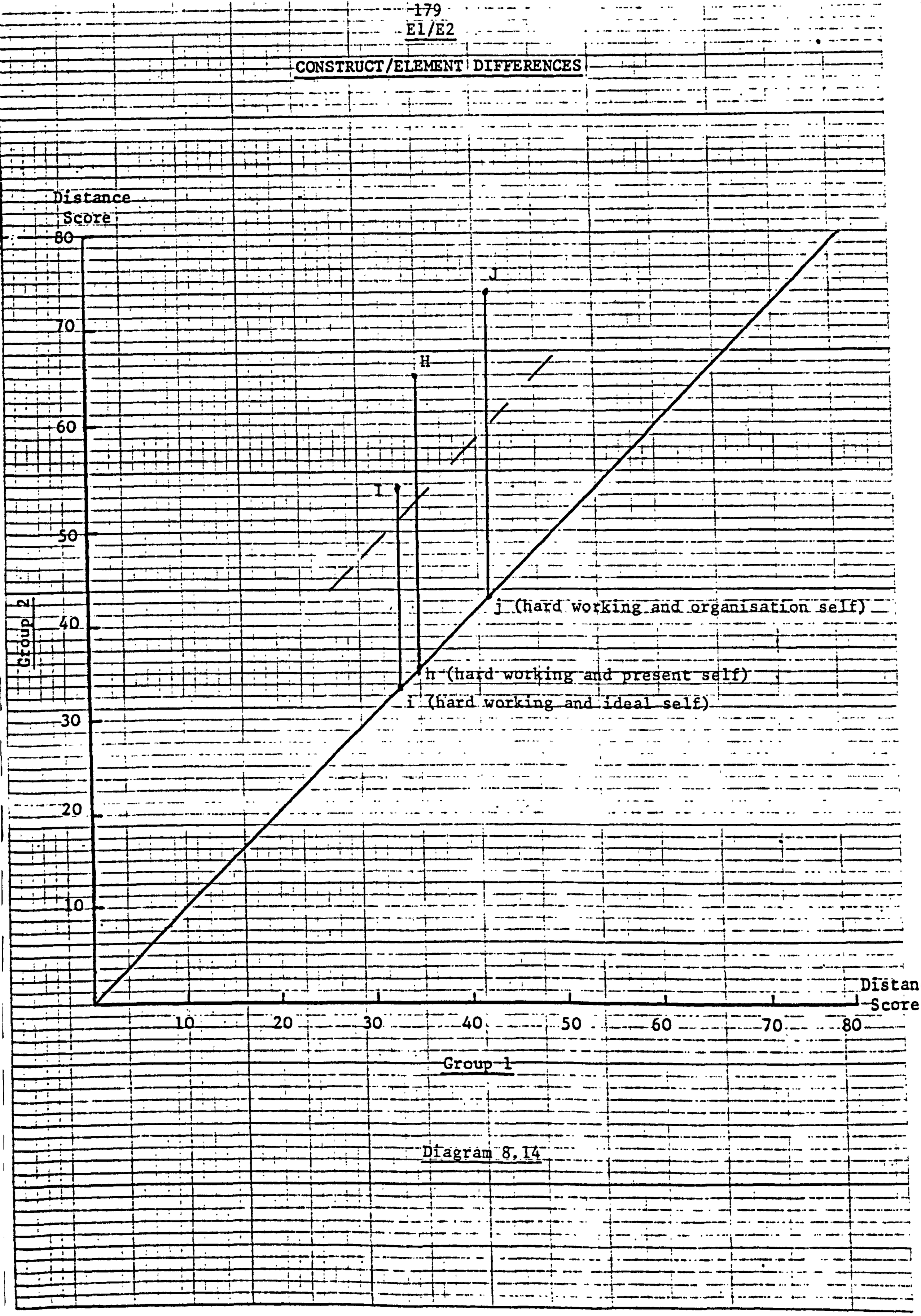



Diagram 8.14

h) Present Self (E1) and the Managers' Boss's Boss (E3)

Here a group of 12 managers with a close distance between their present self and boss's boss (E1 and E3) was contrasted with a group of 11 with a long distance on E1 and E3. As previously, all the distances on the other measures were shorter for the top group, (appendix 8.7). The significant differences between the two groups are shown in Table 8.13.

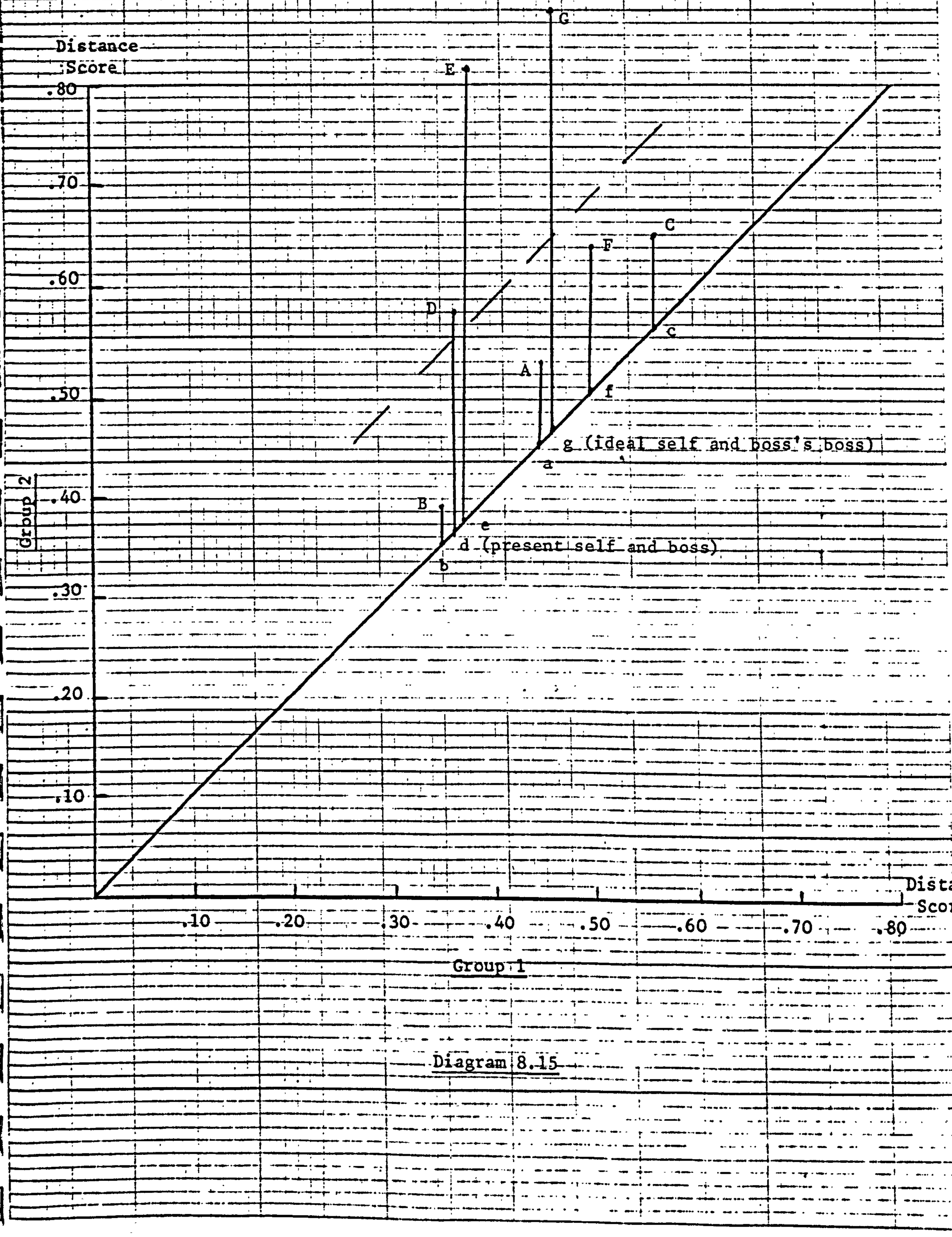
Significant item differences for groups on E1 and E3

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | N/S |
| (b) E1/E12 | (present and organisation self) | N/S |
| (c) E10/E12 | (ideal and organisation self) | N/S |
| (d) E1/E2 | (present self and boss) | .05 |
| (e) E1/E3 | (present self and boss's boss) | --- |
| (f) E10/E2 | (ideal self and boss) | N/S |
| (g) E10/E3 | (ideal self and boss's boss) | .05 |
| (h) C1/E1 | (hard working and present self) | .01 |
| (i) C1/E10 | (hard working and ideal self) | .01 |
| (j) C1/E12 | (hard working and organisation self) | N/S |
| Hard Work: Self Rating | | N/S |
| Hard Work: External Rating | | .05 |

Table 8.13

E1/E3

## ELEMENT DIFFERENCES




Group 1

Diagram 8.15

E1/E3

## CONSTRUCT/ELEMENT DIFFERENCES

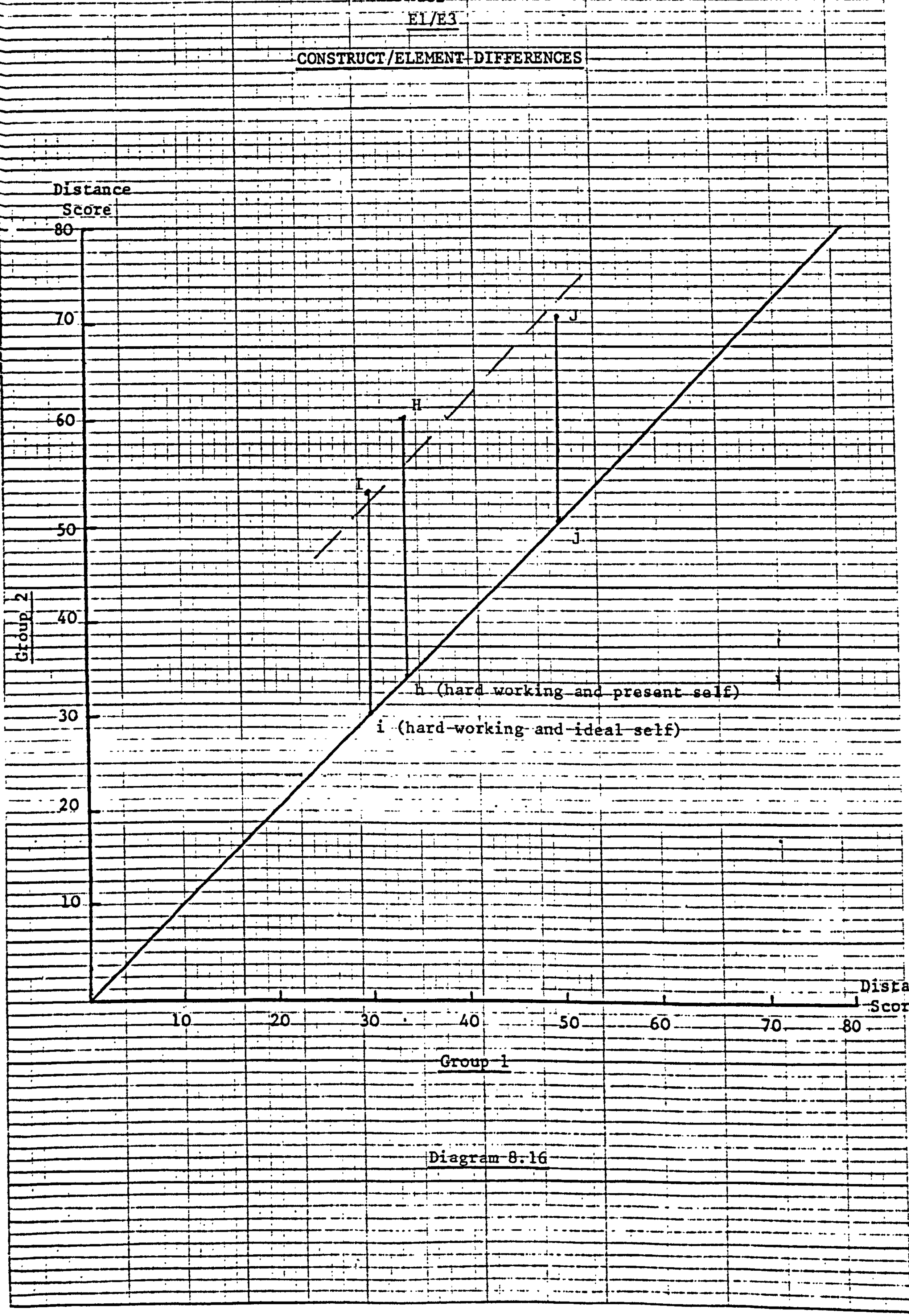



Diagram 8.16

i) Ideal Self (E10) and the Managers' Boss (E2)

In this case, managers with short and long distances for E10 and E2 (ideal self/boss) were contrasted, (appendix 8.8). The significant differences between the two groups on the other measures are shown in Table 8.14.

Significant item differences for groups on E10 and E2

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | .01 |
| (b) E1/E12 | (present and organisation self) | N/S |
| (c) E10/E12 | (ideal and organisation self) | .01 |
| (d) E1/E2 | (present self and boss) | .01 |
| (e) E1/E3 | (present self and boss's boss) | N/S |
| (f) E10/E2 | (ideal self and boss) | --- |
| (g) E10/E3 | (ideal self and boss's boss) | .01 |
| (h) C1/E1 | (hard working and present self) | N/S |
| (i) C1/E10 | (hard working and ideal self) | N/S |
| (j) C1/E12 | (hard working and organisation self) | N/S |
| Hard Work: Self Rating | | N/S |
| Hard Work: External Rating | | N/S |

Table 8.14

E10/E2

## ELEMENT DIFFERENCES

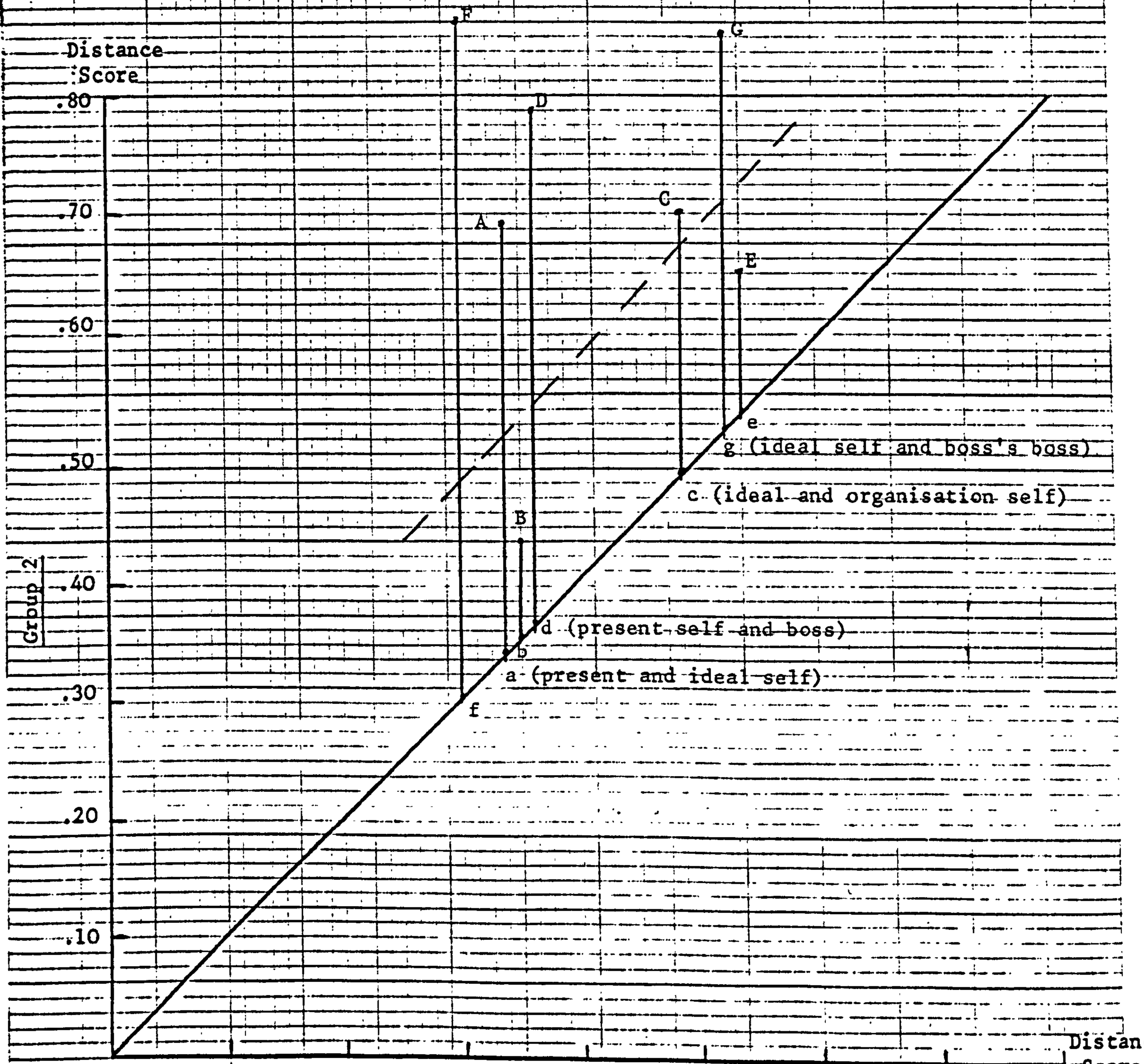



Diagram 8.17

# CONSTRUCT/ELEMENT DIFFERENCES

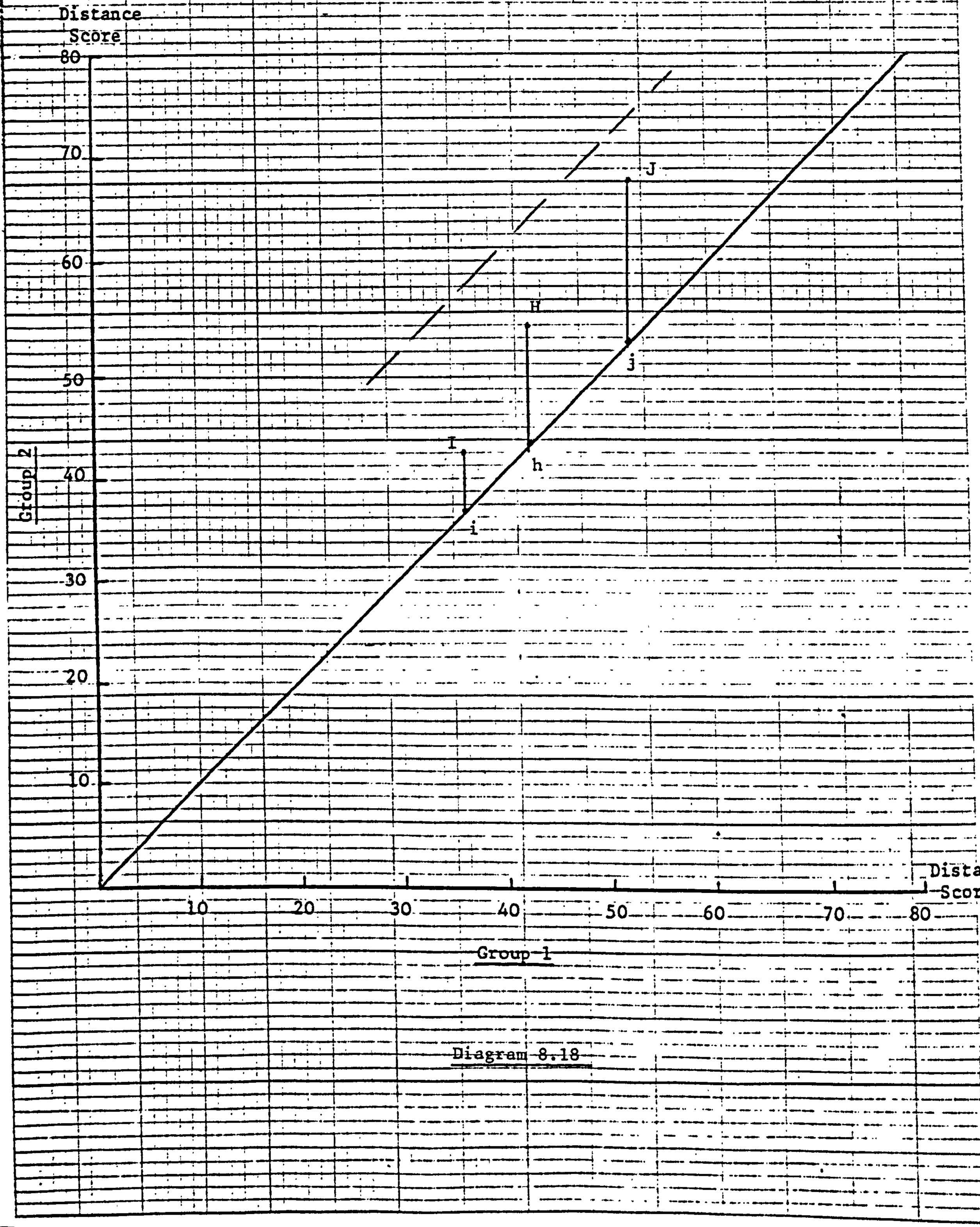



Diagram 8.18

j) Ideal Self (E10) and the Managers' Boss's Boss (E3)

The groups here were composed of managers with short and long distances for E10 and E3 (ideal self/boss's boss) (appendix 8.9). The significant differences are shown in Table 8.15.

Significant item differences for groups on E10 and E3

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | .01 |
| (b) E1/E12 | (present and organisation self) | N/S |
| (c) E10/E12 | (ideal and organisation self) | .01 |
| (d) E1/E2 | (present self and boss) | N/S |
| (e) E1/E3 | (present self and boss's boss) | .01 |
| (f) E10/E2 | (ideal self and boss) | .01 |
| (g) E10/E3 | (ideal self and boss's boss) | --- |
| (h) C1/E1 | (hard working and present self) | N/S |
| (i) C1/E10 | (hard working and ideal self) | N/S |
| (j) C1/E12 | (hard working and organisation self) | N/S |
| Hard Work: Self Rating | | N/S |
| Hard Work: External Rating | | N/S |

Table 8.15

## ELEMENT DIFFERENCES

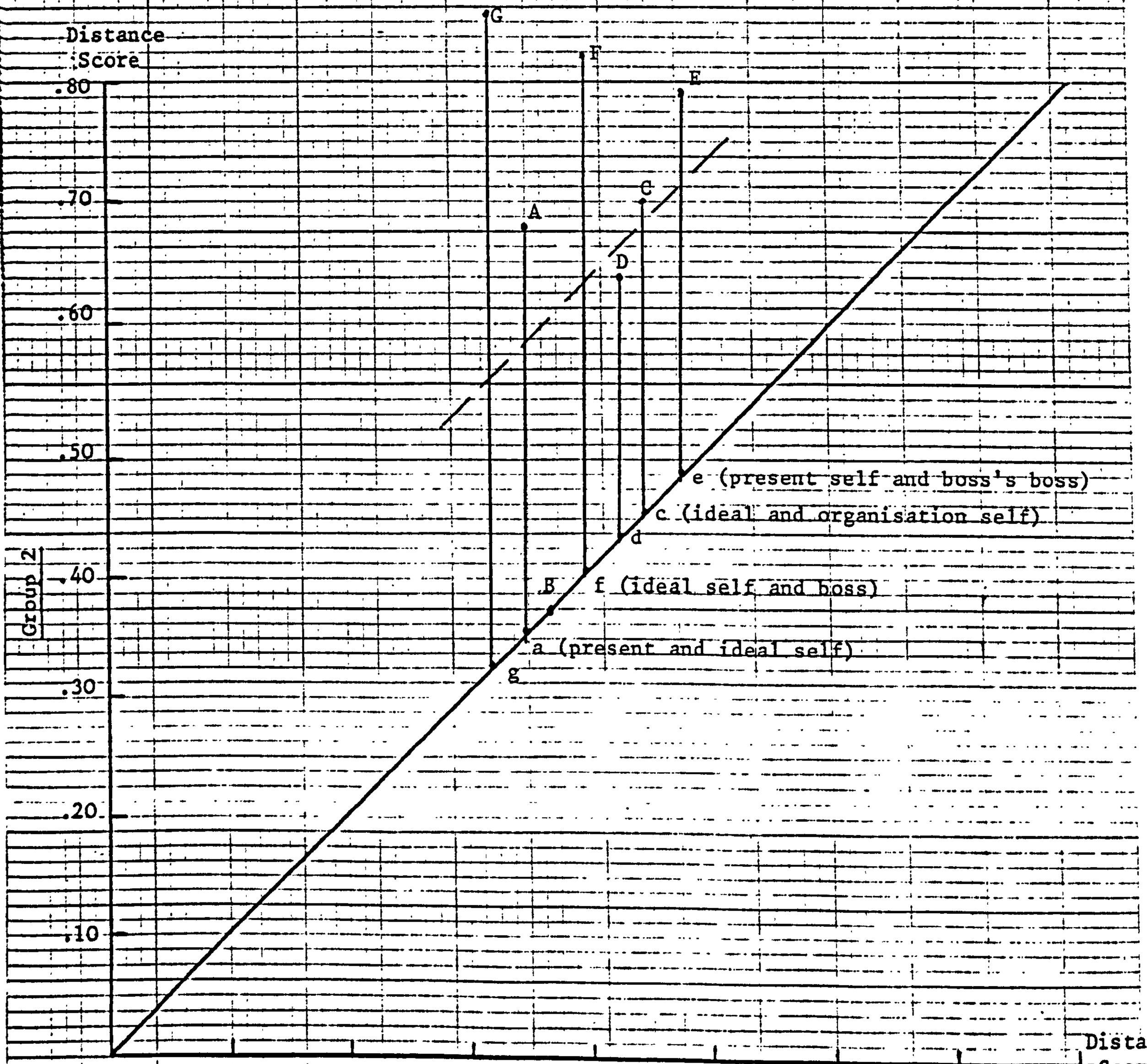



Diagram 8.19

E10/E3

## CONSTRUCT/ELEMENT DIFFERENCES

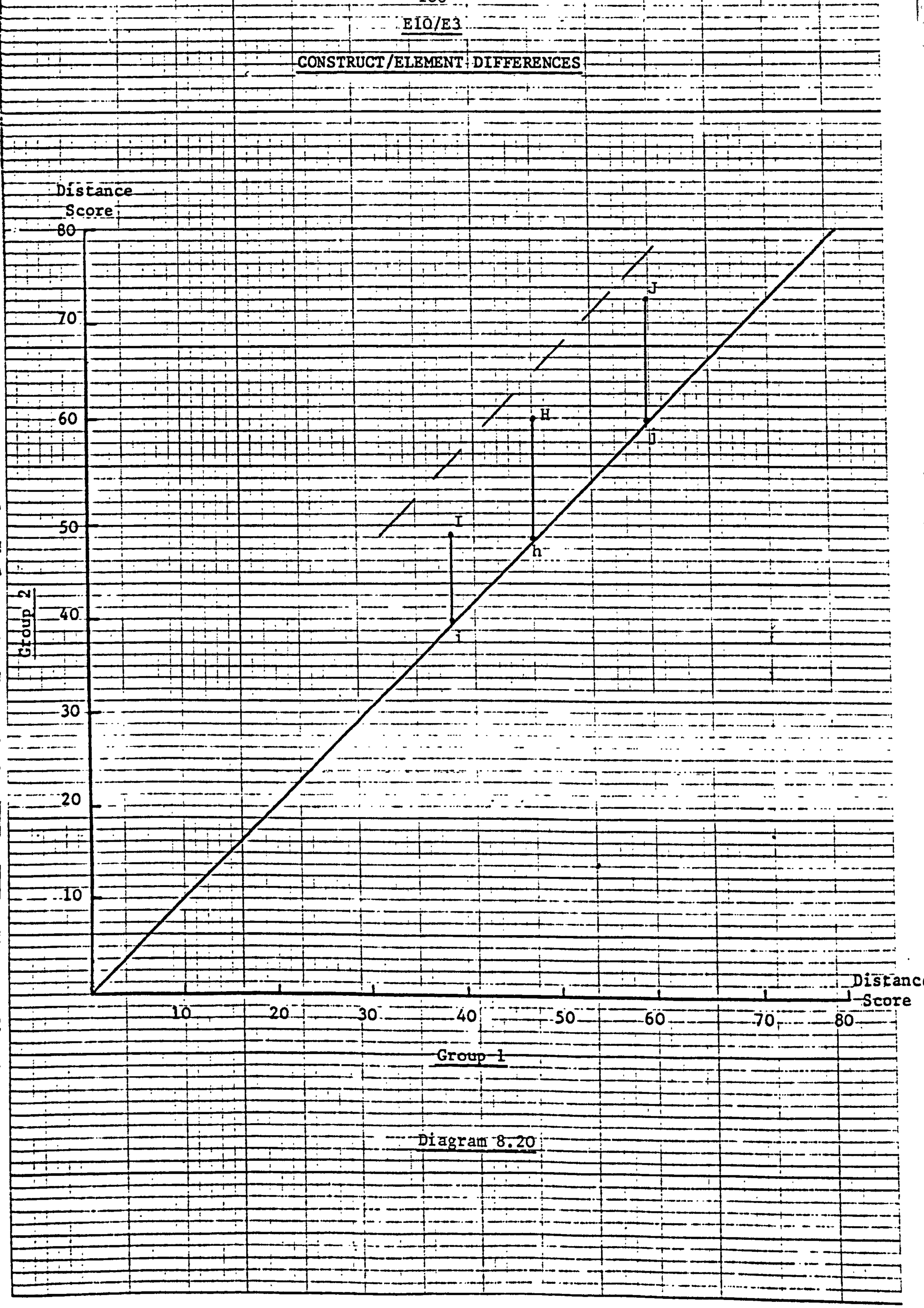



Diagram 8.20

Assessment

In the case of the last two measures (E10 and E2, E10 and E3) there would seem to be little relationship between these and hard work. Neither the self nor external ratings show any significant difference between the groups. Nor is there a significant differences between the way the groups hold the notion of hard work in relation to the various aspects of the self (C1/E1, C1/E10, C1/E12).

The first two measures in this section (analysis g, E1 and E2, and analysis h, E1 and E3) however, reveal some interesting findings. In both cases, the groups with the shortest distances on each measure are significantly harder working in terms of their external rating, than managers who do not identify with their boss or boss's boss. These harder working managers also value more the notion of hard work in relation to their present and ideal selves than do the bottom groups.

Thus, as mentioned earlier there would seem to be some relationship between self identification of one's own values with those of one's supervisor and the general tendency to work hard.

4) A Measure Indicating The Extent To Which A Discrepant Organisation Self (E12) Is Related To The Notion Of Hard Work

k) Negative E12 in Relation to Component 1

A number of managers (7) placed their organisation self element (E12) on the opposite, or negative, side to their other self elements on Component 1. This group was compared with the group of managers (11) placing E12 in the top 3 elements on Component 1, in order to highlight differences (appendix 8.10). The significant differences between the two groups are shown in Table 8.16.

Significant item differences for groups on E12 and Component 1

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | N/S |
| (b) E1/E12 | (present and organisation self) | N/S |
| (c) E10/E12 | (ideal and organisation self) | .01 |
| (d) E1/E2 | (present self and boss) | N/S |
| (e) E1/E3 | (present self and boss's boss) | .01 |
| (f) E10/E2 | (ideal self and boss) | N/S |
| (g) E10/E3 | (ideal self and boss's boss) | N/S |
| (h) C1/E1 | (hard working and present self) | .01 |
| (i) C1/E10 | (hard working and ideal self) | N/S |
| (j) C1/E12 | (hard working and organisation self) | .01 |
| Har Work: Self Rating | | N/S |
| Hard Work: External Rating | | .05 |

Table 8.16

E12/Component 1

## ELEMENT DIFFERENCES

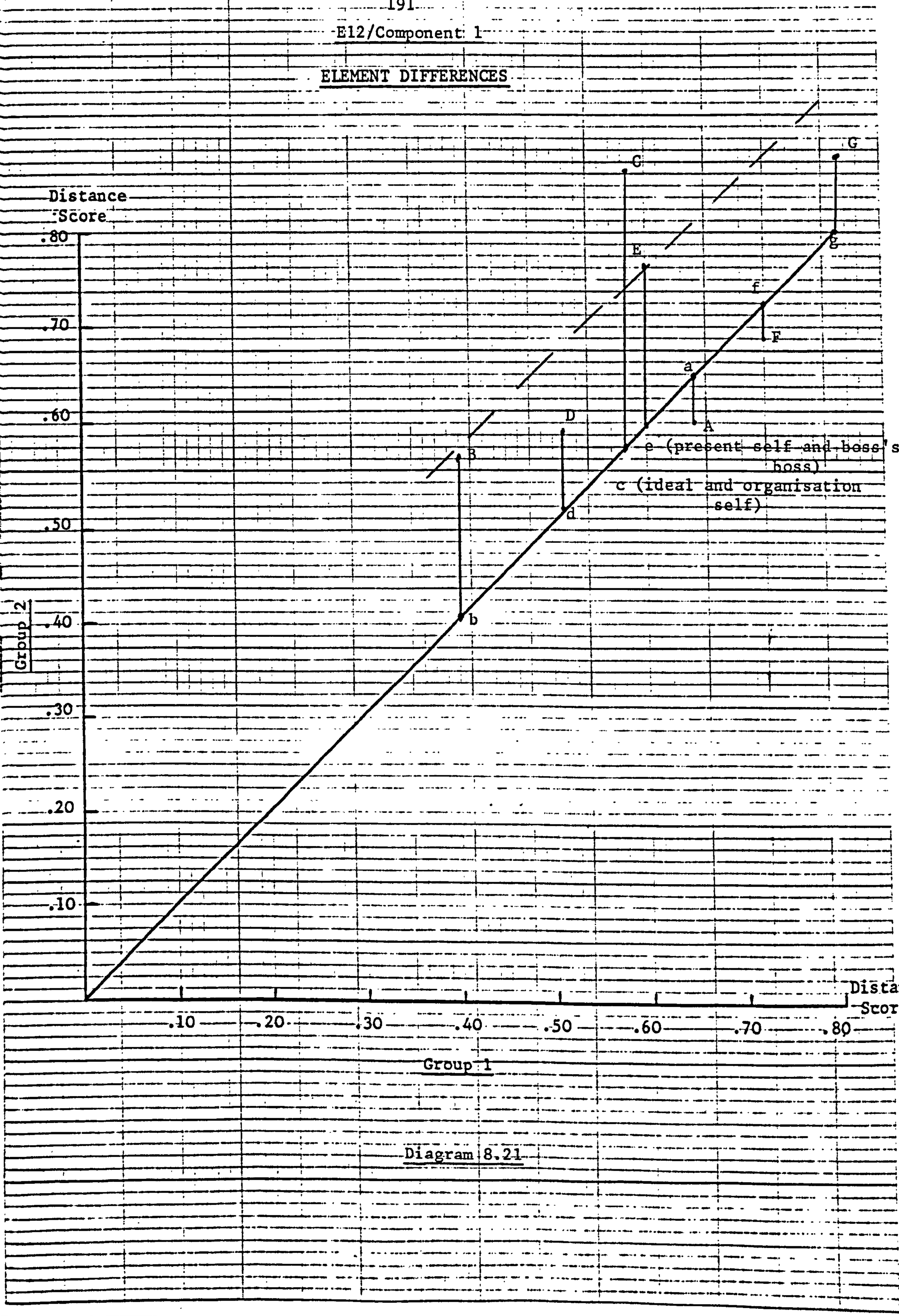



Diagram 8.21

E12/Component 1

CONSTRUCT/ELEMENT DIFFERENCES

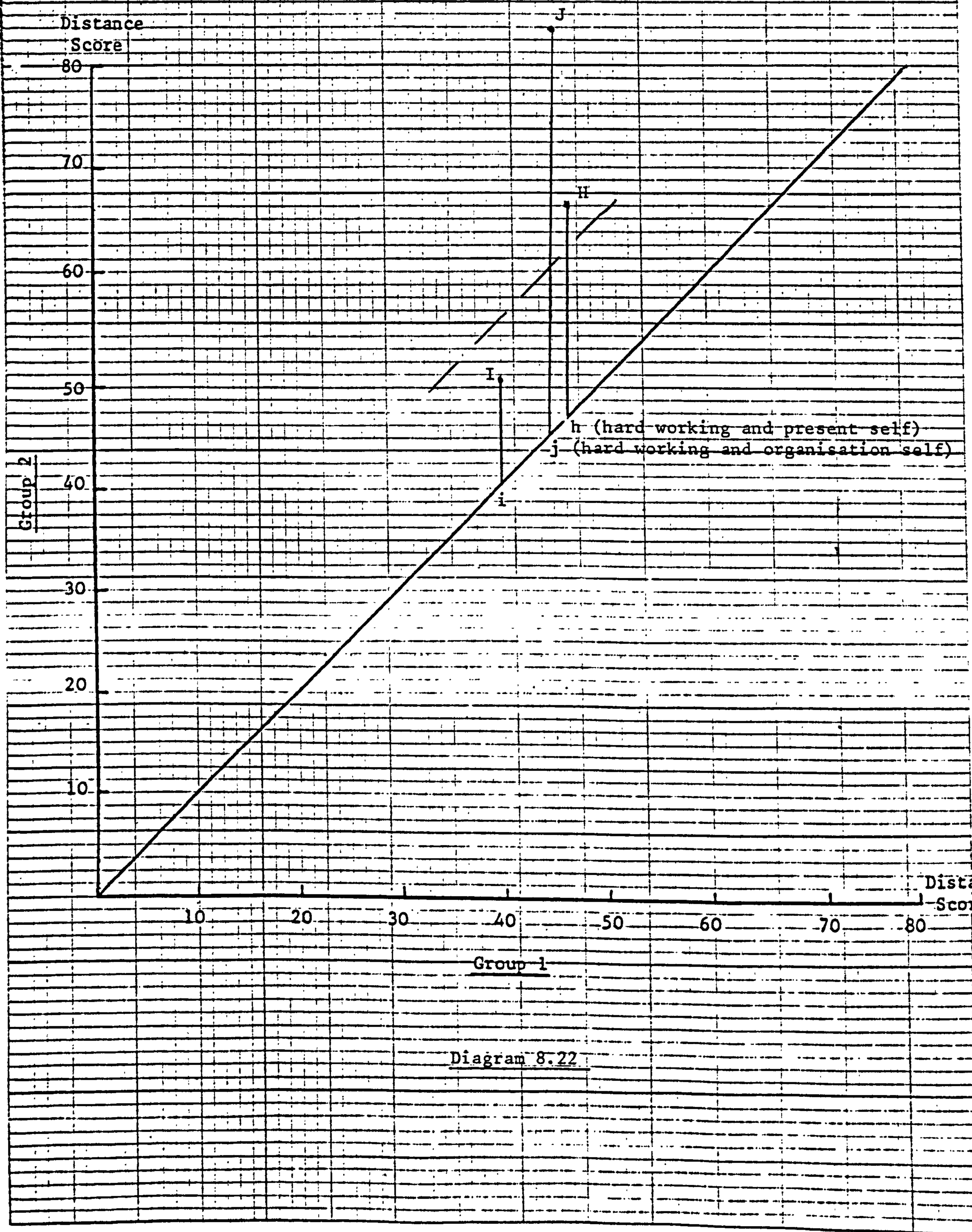



Diagram 8.22

Assessment

The above results suggest that the managers with a discrepant organisation self have a tendency to work less hard than managers who see their organisation self closer to their other aspects of self. The external hard work rating difference, significant at the .05 level, hides the fact that the average external rating for hard work for the group with a negative E12, at 3.29, is a lower average rating than any other grouping. It is noticeable also that there is a significant difference between the two groups in terms of the value they place on the notion of hard work in relation to the present self (C1/E1) and the organisation self (C1/E12). This would seem to support the general notion that the greater the value placed on hard work, the greater the tendency to be hard working.

Diagram 8.21 reveals an additional point. Two distances there (E1/E10 and E10/E2) are shown to fall below the diagonal line indicating that the managers with a negative E12, as a group, and on average, had closer distances for their present and ideal selves, and ideal self and boss, than those with a positive E12. It is difficult to draw any conclusions about the latter measure (E10/E2), but the close distance for the E1/E10 measure indicates that a manager can have a wide discrepancy between his organisation and other selves, and yet still have high self esteem. The difference between the two groups on this measure are not significant, but this may point to the interesting notion that to be able to retain a very discrepant notion of one's organisation self, one may have to have high feelings of self esteem.

## 5) Other Measures Concerned With Establishing The Importance Of Hard Work (C1) In A Manager's Construct System

The analysis made on the two pilot managers (appendix 7.2) suggested that if hard working managers held the notion of hard work high in their construct system then this would be revealed by where managers placed construct 1 (hard working) on Construct Variation and on Component 1; that is, the suggestion was that hard working managers would place C1 high in both cases. Two groups of managers were compared in relation to these aspects.

### 1) C1 (hard working) in relation to Construct Variation

The two groups in relation to this measure are composed of managers who scored C1 in the first five constructs on Construct Variation as against those whose score put C1 amongst their bottom three constructs on Construct Variation, (appendix 8.11). The significant differences between the groups are shown in Table 8.17.

Significant item differences for groups on C1 and Construct Variation

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | N/S |
| (b) E1/E12 | (present and organisation self) | N/S |
| (c) E10/E12 | (ideal and organisation self) | .01 |
| (d) E1/E2 | (present self and boss) | .05 |
| (e) E1/E3 | (present self and boss's boss) | N/S |
| (f) E10/E2 | (ideal self and boss) | .05 |
| (g) E10/E3 | (ideal self and boss's boss) | N/S |
| (h) C1/E1 | (hard working and present self) | .01 |
| (i) C1/E10 | (hard working and ideal self) | N/S |
| (j) C1/E12 | (hard working and organisation self) | .01 |
| Hard Work: External Rating | | N/S |

Table 8.17

## C1/Construct Variation

## ELEMENT DIFFERENCES

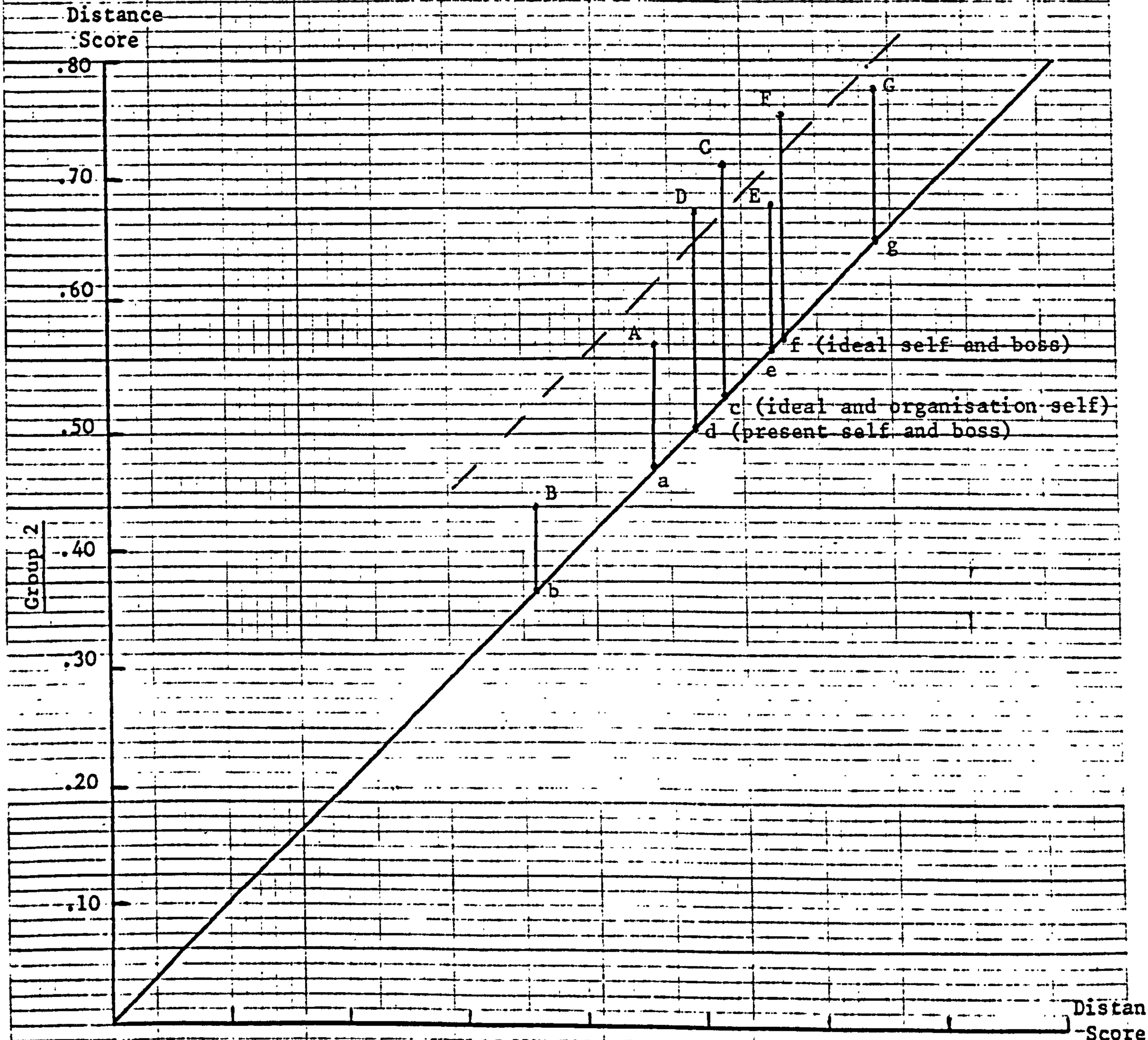



Diagram 8.23

## C1/Construct Variation

## CONSTRUCT/ELEMENT DIFFERENCES

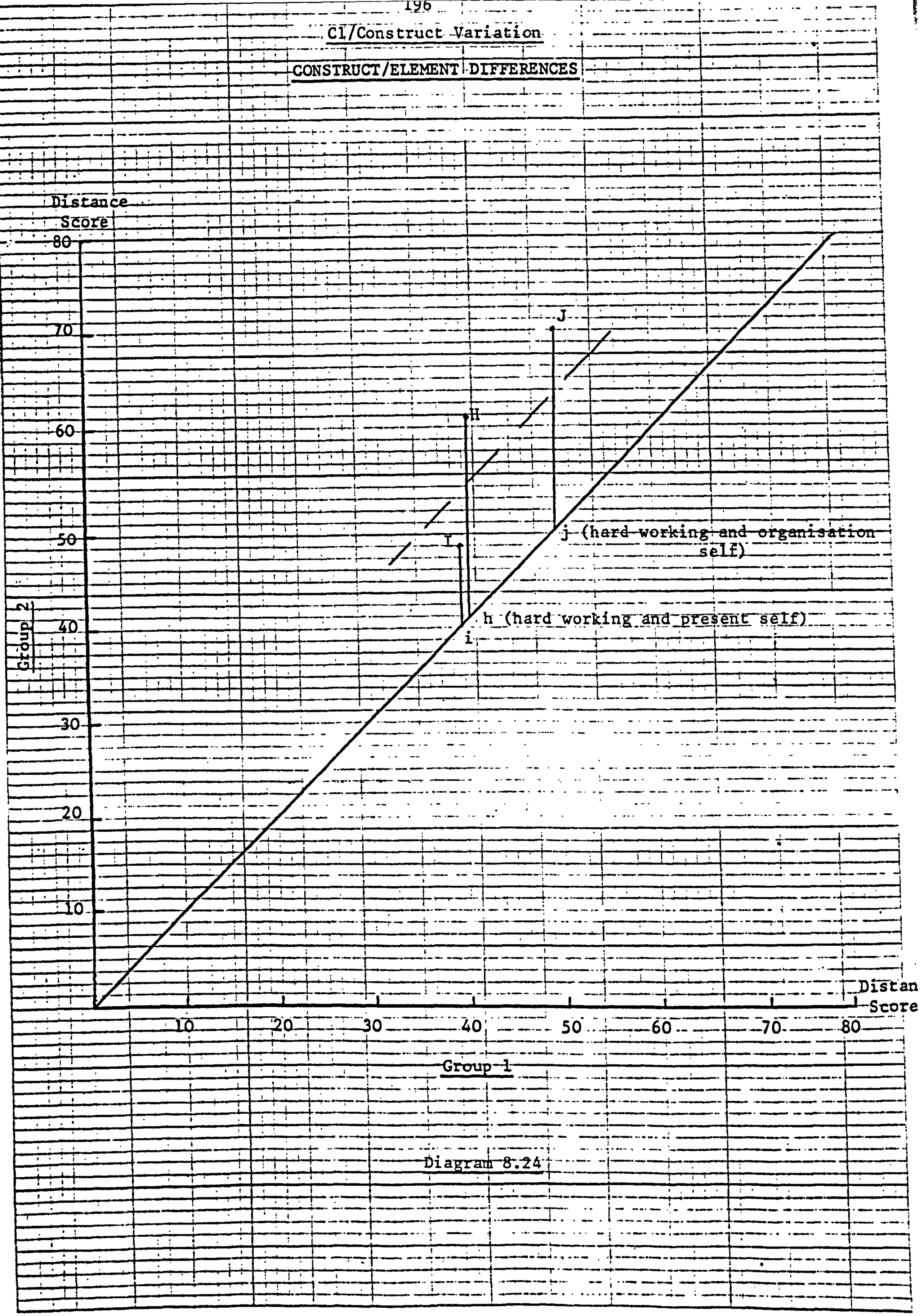



Diagram 8.24

m) C1 (Hard Working) in Relation to Component 1

The two groups contrasted here consist of managers who placed C1 in the first 5 constructs on Component 1 as against those who placed C1 in the bottom 5, (appendix 8.12). The significant differences are shown in Table 8.18.

Significant item differences for groups on C1 and Component 1

| Measure | | Significance Level |
|---|---|---|
| (a) E1/E10 | (present and ideal self) | N/S |
| (b) E1/E12 | (present and organisation self) | N/S |
| (c) E10/E12 | (ideal and organisation self) | .05 |
| (d) E1/E2 | (present self and boss) | N/S |
| (e) E1/E3 | (present self and boss's boss) | .05 |
| (f) E10/E2 | (ideal self and boss) | N/S |
| (g) E10/E3 | (ideal self and boss's boss) | N/S |
| (h) C1/E1 | (hard working and present self) | .01 |
| (i) C1/E10 | (hard working and ideal self) | N/S |
| (j) C1/E12 | (hard working and organisation self) | .05 |
| Hard Work: External Rating | | N/S |

Table 8.18

C1/Component 1

## ELEMENT DIFFERENCES

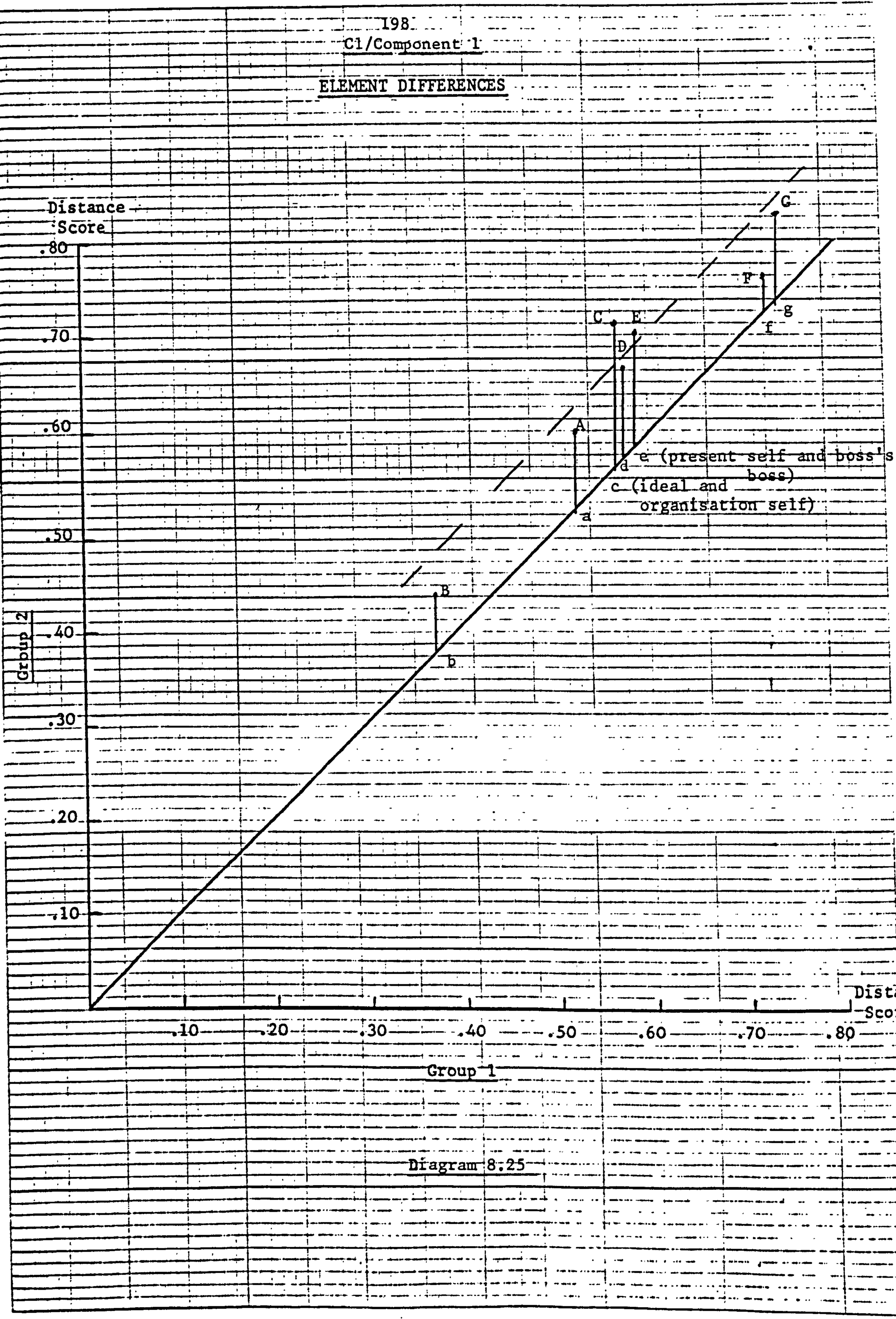



Diagram 8.25

C1/Component 1

## CONSTRUCT/ELEMENT DIFFERENCES

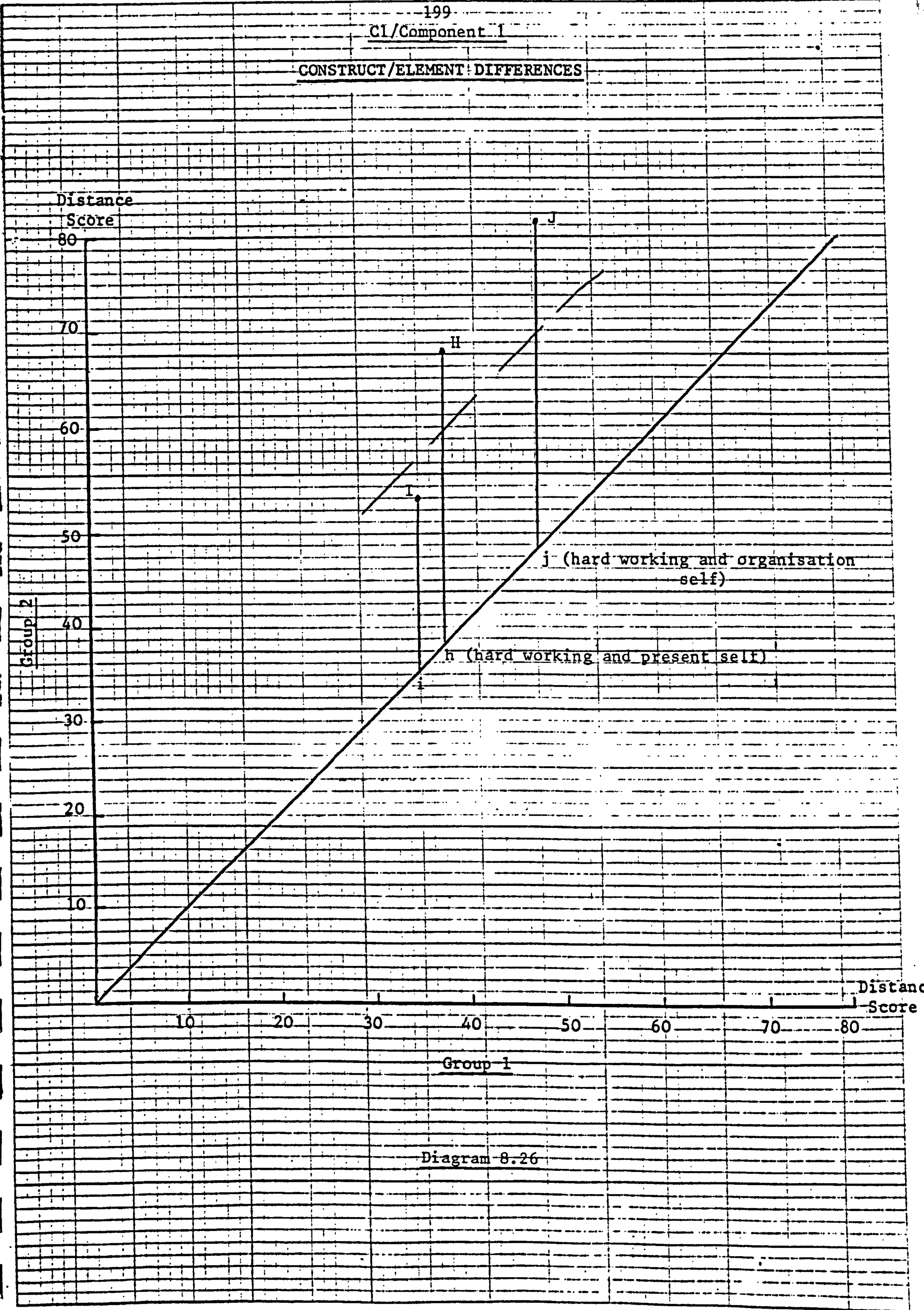



Diagram 8.26

Assessment

Perhaps the most notable aspect of these two tables is that while they are both concerned with the value placed on the notion of hard work, the managers in the top groups (Group 1) are not perceived to be significantly harder working than those in the bottom groups (Group 2). This is despite the fact that the managers in the top groups also hold hard work significantly higher in relation to the various aspects of their selves, (C1/E1, C1/E10, C1/E12) than do the bottom groups (except for C1/E10 for the measure C1 on Component 1). Although the top managers are externally rated as harder working, the difference is not significant, (on the measure C1 in relation to Construct Variation, the external hard work rating is 2.40 for the top managers as against 2.94 for the bottom managers, while on C1 in relation to Component 1 the rating is 2.63 as against 2.94). It is difficult to explain why this should be so in the light of the arguments outlined before, and although this does not contradict those arguments it would seem to sound a note of caution about method. Nevertheless, the weight of the evidence, and that of the next section, supports the conclusion suggested by the earlier analysis that the emphasis placed on the notion of hard work in an individual's self construct system has some relationship with a significant tendency to work hard.

6) Measures Of Hard Work

n) The External Rating of Hard Work

In looking at this measure, all the 44 managers were split into four groups according to the external rating for hard work. The first group consisted of 3 managers with a rating of 1 (i.e. the hardest working). The second group with a rating of 2 (i.e. the next hardest working) consisted of 18 managers. The third group with a rating of 3 was composed of 14 managers, while the last group (the least hard working) with a rating of 4, consisted of 9 managers. What follows is a comparison between these four groups.

Below (Table 8.19) are the average scores for each group on each of the measures that have been considered in the previous analyses.

Average item scores in relation to external hard work ratings

| Measure | Rating | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| | Scores | | | |
| E1/E10 | .30 | .53 | .58 | .53 |
| E1/E12 | .21 | .35 | .47 | .41 |
| E10/E12 | .37 | .59 | .72 | .57 |
| E1/E2 | .44 | .49 | .59 | .64 |
| E1/E3 | .54 | .57 | .65 | .72 |
| E10/E2 | .56 | .67 | .69 | .60 |
| E10/E3 | .59 | .77 | .75 | .63 |
| | | | | |
| C1/E1 | 26.20 | 43.87 | 53.12 | 67.64 |
| C1/E10 | 33.23 | 39.03 | 46.56 | 47.86 |
| C1/E12 | 28.77 | 57.97 | 64.81 | 80.50 |

Table 8.19

The figures for the element distances show movement away from closeness or similarity between the various elements, the less hard working

managers are. Thus, the more hard working managers are, the greater the tendency to have more integrated aspects of the self (i.e. shorter E1/E10, E1/E12 and E10/E12 distances) and to see oneself more similarly to one's supervisors (E1/E2, E1/E3, E10/E2, E10/E3). It is interesting that this trend seems to break down for all the items except two, when we reach the least hard working managers (rating of 4). Their average scores, on 5 of the element items, are less than for the managers with a rating of 3. It is interesting that where this trend towards greater distance the less hard working the managers are, is not broken by the group with a rating of 4, the two measures are both related to supervisors (E1/E2 and E1/E3). This would seem to further support the notion that the way we see our own values and whether we think they are similarly reflected by our supervisors has some link with hard work.

Of perhaps greater interest is the very distinctive trend among the groups in relation to the distance of the construct hard working (C1) in relation to the various self aspects. For C1/E10 the trend is not as well defined although still evident. For the other measures, C1/E1 and C1/E12, there is a distinctive increase in the distance with which hard work is valued on the dimensions of present and organisation self, the lower the managers are rated for hard work. Again, it is not possible to establish causality from this (whether we are hard working because we value hard work, or value hard work because we are hard working), but there would seem to be a link between the behavioural tendency towards hard work and the psychological construct of hard work.

o) The Self Rating of Hard Work

As previously, the managers were split into groups according to their rating for hard work. In this case there were three groups; those managers giving themselves a self rating of 1 (16 managers), those with a self rating of 2 (23 managers), and those with a rating of 3 or below (5 managers). The average scores for each group are as shown in Table 8.20.

Average item scores in relation to self hard work ratings

| Measure | Rating | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| | Scores | | |
| E1/E10 | .39 | .61 | .61 |
| E1/E12 | .36 | .41 | .38 |
| E10/E12 | .52 | .66 | .64 |
| E1/E2 | .51 | .55 | .67 |
| E1/E3 | .55 | .63 | .81 |
| E10/E2 | .55 | .71 | .75 |
| E10/E3 | .60 | .78 | .83 |
| | | | |
| C1/E1 | 35.01 | 52.81 | 89.22 |
| C1/E10 | 38.65 | 39.79 | 70.25 |
| C1/E12 | 45.06 | 68.12 | 94.78 |

Table 8.20

Again, with regard to the elements, there is a tendency for the distances to increase on the items, the less hard working the managers are. However, the pattern is less clear than was the case with the previous analysis.

With regard to the distance of construct 1 (hard working) in relation to the self aspects, as before there is a progression, with the C1 distance increasing the less hard working the managers. However, as these three measures are a part reflection of a managers self rating for hard work, it would be wrong to read too much into this.

Perhaps the most important aspect of these groups is that the difference between the average external, rather than the self, rating for hard work for group 1 (2.31) is significantly different (at .05) to that of group 3 (3.40). Thus, it would seem that managers in general who tend to rate themselves as hard working are, in fact, hard working, and that holding the value of hard work high in one's construct system is related to a behavioural tendency.

## Overall Conclusions

The main overall conclusion from the analysis is that managers who hold the notion of hard work as important in relation to their self construct systems are generally more hard working than those who do not value the construct. However, while the evidence seems to point strongly to some kind of relationship between the behavioural tendency towards hard work and the psychological construct of hard work, the relationship is complex. Nevertheless, how the manager sees the notion of hard work in relation to the various aspects of himself would seem to be important. Valuing the notion of hard work as part of an ideal self would seem to be less important than valuing the notion presently (i.e. in relation to his present self) and projecting it (i.e. in relation to his organisation self). Certainly, managers, in general, who are not hard working place much less value on the notion of hard work in relation to the major aspects of their work self concept or image.

How the various aspects of self are integrated for a manager would seem to be of less importance in relation to his tendency to work hard. It would not seem critical that hard working managers have high self esteem (i.e. a close distance between the present and ideal selves, E1/E10) or have a close distance between the ideal and organisation selves (E10/E12). However, one aspect of the self integration would seem to have some importance in relation to hard work. This is organisation esteem (i.e. the distance between the present and organisation selves, E1/E12). Managers with high organisation esteem were significantly different in their external rating for hard work than those with low organisation esteem. This was also true of those managers who had their organisation selves (E12) negative, or opposite, to their other self aspects in relation to Component 1. Precisely why this should be is difficult to say at this point. Managers with a poor organisational projection may just be bad at projecting themselves, or they may actually be misunderstood or misperceived. Conversely, they might also not perceive themselves to be hard working. If this is the case, the managers might be unconsciously

realising a self fulfilling prophesy. If a manager feels people do not think he works hard he may subconsciously begin to behave that way with the belief in the 'back of his mind' that it does not make any difference anyway.

Also of significance in relation to hard work would seem to be the extent to which managers see themselves and their supervisors emphasising the same values. Managers who see themselves presently (i.e. their present selves) in a fairly similar way to their boss or boss's boss, tend to be more hard working than those who see their values at variance with those of their bosses. It would not seem to be a matter of just getting on with your boss, but whether a manager's outlook towards work is similar. There are a number of reasons why this might be so. It might be merely that managers who do not see themselves as being similar to their bosses, do not see a similarity partly because they do not value hard work. But it could also be that where supervisor and subordinate have different general approaches to the workplace and what is generally valued there, the feeling on the subordinate's part, of not seeing eye-to-eye with his boss, may be demotivating. If this were the case this would add, not necessarily a new dimension, but a possibly more accurate understanding of the way supervisors might motivate subordinates. With managers, it may not just be a matter of having a good communication channel with one's boss and possibly receiving the odd motivational pep talk now and again, usually at job appraisals, but what may be most important motivationally is whether the two managers value the same things, not whether one's boss alone has good interpersonal skills or so called 'leadership' qualities.

One final point from the analysis is that there seem to be differences between managers who have close distances between their present and ideal selves (E1/E10) and those who have close distances between their present and organisation selves (E1/E12). Managers who have high self esteem (close E1/E10 distances) do not have significantly greater organisation esteem (close E1/E12 distance) than those with low self esteem. Equally, managers with high organisation esteem do not have

significantly greater self esteem than managers with low organisation esteem. Indeed, if anything, in some cases, there would seem to be a tendency for those with very low organisation esteem, to have high self esteem. Moreover, managers with high organisation esteem perceive themselves to be significantly harder working than those with low organisation esteem, while having high or low self esteem does not mean there is a significant tendency to work harder. Thus, self esteem (E1/E10) and organisation esteem (E1/E12) would seem to be two separate and distinct items with possibly different implications for tendencies towards particular types of work behaviour.

Thus, one can sum the above up as follows,

- There is a significant relationship between managers who value the notion of hard work in relation to their present selves and their perception of their tendency to be hard working.
- There is a significant relationship between managers who value the notion of hard work in relation to their organisation selves and their perception of their tendency to be hard working.
- There is a significant relationship between managers who have a closely integrated organisation self and their perception of their tendency to be hard working.
- There is a significant relationship between managers who see their present selves very similar to their boss or boss's boss and their perception of their tendency to be hard working.
- Self esteem and organisation esteem are statistically separate notions with separate behavioural implications.

Thus, this would seem to establish that there is some connection between the constructs held and their combinations into various self perceptions, and a perceived tendency towards hard work. Whether one's constructs then determine one's behaviour, or whether one's behaviour gives rise to the development of particular constructs is not discernable from the data above. Nevertheless, there are a number of implications that this very general principle has for particular work approaches and work activity, which may be investigated by disaggregating the data much more. In the next chapter further investigation is made of the significance that different types of construct may have for managers' work approach.

# CHAPTER 9

# REPERTORY GRID ANALYSIS PART II

# CONSTRUCT ANALYSIS

## Introduction

This chapter is concerned with the types of constructs the 44 managers at Sandvik and Lansing Bagnall elicited. It outlines a categorisation of these constructs and examines whether certain constructs were elicited by certain managers. In particular, the construct 'hard working' is explored and whether hard working managers emphasise certain constructs in a different way from other managers.

## Construct Classification

A total of 459 constructs were elicited from the 44 managers (appendices 9.1 and 9.2). Of the 459, 202 were different from each other. These 202 have been classified into 9 broad groupings (and are listed in Figures 9.1 to 9.9) as follows;

A. Abilities/Aptitudes.

These are general cognitive abilities that might be looked on as inward, thinking abilities, and include intellectual ability, logic and creativity.

B. Work Skills.

Here again cognitive abilities are involved, but these are more concerned with aspects outside the person, such as broad vision and seeing priorities. In addition, practical skills, such as good organiser and others such as technical ability, are also included in this category.

C. Positive Work Values, and D. Passive Work Values.
These two groupings refer to factors describing an individual's general orientation to work and the job. The first group consists of items that could be considered to be more dynamic or proactive factors, while the second group, as the name implies, are more reactive or neutral.

E. Developmental Constructs.
These are factors concerned with an individual's development or personal progress.

F. Positive People Reactives, and G. Passive People Reactives.
These two groupings refer to factors and abilities related to the way an individual approaches people and deals with them. The positive reactives, such as effective manager, leader etc, as with Positive Work Constructs, are dynamic factors which are popularly regarded as characteristics of a 'manager'. The Passive Reactives are what might be considered to be softer, or accepting, or 'decent' approaches to people.

H. & I. Personality Traits.
This last group has been divided into H. Active Traits and I. Passive Traits. The division between the two groups is fuzzy, but the passive traits are those concerned wth the way the individual looks at his world and himself, while the active traits are more concerned with the way he might react to the world and himself.

The last point, perhaps raises the problem of grouping together factors which under Kelly's banner are called constructs, but under others, are a collection of attitudes, values and traits, and somewhat vague abilities. One might question whether it is possible to include two factors such as 'emotional' and 'cunning' under the same heading, or whether 'capable' means a great deal. But in this case, the groupings are seen as legitimate because the argument here is that, apart from the notion of hard work, it is the general construct emphasis that the individual has in relation to his self image and to work

## A ABILITIES/APTITUDES

| Construct | Number of Managers Having the Construct | |
|---|---|---|
| | Sandvik | Lansing |
| Clear Thinker | 1 | 2 |
| Conceptual Thinker | | 1 |
| Problem Solver | 2 | |
| Accurate | 1 | |
| Reflective | 2 | |
| Analytical | 8 | |
| Logical/Good Reasoning | 5 | 1 |
| Thinks in Context | 1 | |
| Thoughtful/Deep Thinker | 3 | 2 |
| Intellectual Ability | 2 | 1 |
| Sharp | 1 | 2 |
| Intelligent | 2 | |
| Rational | 1 | |
| Consistent | 2 | 1 |
| Ability to Summarise | 1 | |
| Imaginative | | 1 |
| Creative | 1 | |
| Total | 33 | 11 |

Figure 9.1

## B WORK SKILLS

| Construct | Number of Managers Having the Construct | |
|---|---|---|
| | Sandvik | Lansing |
| Organised | 2 | 1 |
| Good Planner | | 1 |
| Practical Business Approach | | 1 |
| Administration | 1 | |
| Good Organiser | 1 | 2 |
| Good Decision Maker | 2 | |
| Foreseeing/Forward Thinking | 4 | 1 |
| Judgement | 1 | |
| Wide Scope | | 3 |
| Broad Vision | 5 | |
| Generalist | 1 | |
| Awareness | 1 | 1 |
| Sees Priorities | 1 | |
| Articulate | 1 | 1 |
| Good Communicator | 4 | 7 |
| Perceptive | 1 | |
| Anticipitave | 1 | |
| Ability | 4 | 1 |
| Straight to the Point | 1 | |
| Brief | 2 | 1 |
| Knowledgeable | 2 | |
| Technical Ability | 1 | 2 |
| Good Engineer | | 1 |
| Qualified | | 1 |
| High Capacity for Work | | 2 |
| Capable | 8 | 1 |
| Total | 42 | 27 |

Figure 9.2

C POSITIVE WORK VALUES

| Construct | Number of Managers Having the Construct | |
|---|---|---|
| | Sandvik | Lansing |
| Fast Worker | | 1 |
| Industrious | 1 | |
| Constructive | 1 | |
| High Performer | | 1 |
| Doer | 1 | |
| Decisive | 3 | |
| Commitment to Own Ideas | 1 | |
| Task Motivation | | 1 |
| Meeting Objectives | 1 | 1 |
| Purposeful | | 1 |
| Desire to Improve Things | | 1 |
| Determination | 2 | 1 |
| Go Ahead | 1 | |
| Efficient | 1 | |
| Initiative | 1 | |
| Completes a Task | 1 | |
| Tenacious | 1 | |
| Decisive | 1 | |
| Dynamic | 3 | |
| Keen | 1 | 1 |
| Enthusiastic | 3 | 3 |
| Commitment | 3 | 3 |
| Involved | | 1 |
| Makes Things Happen | 1 | |
| Professionalism | 2 | |
| Effectiveness | 2 | |
| Positive Attitude | 10 | 1 |
| Not Complacent | 1 | |
| Lots of Drive | | 1 |
| Dedicated | 2 | 1 |
| Politically Adept | 1 | |
| Total | 45 | 18 |

Figure 9.3

## D PASSIVE WORK VALUES

| Construct | Number of Managers Having the Construct | |
|---|---|---|
| | Sandvik | Lansing |
| Competance | 1 | |
| Diligence | 1 | 1 |
| Dependability | 1 | 1 |
| Methodical | 1 | |
| Thorough | 2 | 1 |
| Reliable | 3 | 2 |
| Not Careless | 1 | |
| Conscientious | 5 | 1 |
| Willing | 2 | 2 |
| Adaptable | 5 | |
| Acceptance of Change | 3 | |
| Flexible | 1 | 1 |
| Responsible | 3 | 1 |
| Realistic | 3 | 1 |
| Receptive | 2 | 1 |
| Constructive | | 2 |
| Credible | | 1 |
| Thinks About Job | | 1 |
| Pays Interest | 1 | |
| Economic in Effort | 1 | |
| Company Man | | 1 |
| Loyal | 4 | 2 |
| Same Approach | 1 | |
| Customer Orientated | 1 | |
| Admits Errors | | 1 |
| Self Motivated | 2 | 6 |
| Total | 44 | 26 |

Figure 9.4

E DEVELOPMENTAL CONSTRUCTS

| Construct | Number of Managers Having the Construct | |
|---|---|---|
| | Sandvik | Lansing |
| Learning | 4 | |
| Strives for Success | 2 | |
| Actualisation | 1 | |
| Successful | 4 | |
| Achievement | 5 | |
| Maximises Talents | | 1 |
| Striving for Improvement | | 1 |
| Education on Life | 1 | |
| Making Progress | 1 | |
| Potential | | 1 |
| Gaining Knowledge | | 1 |
| Not Waste Themselves | 1 | |
| Ambitious | 14 | 3 |
| Experience | 1 | 2 |
| Total | 34 | 9 |

Figure 9.5

F POSITIVE PEOPLE REACTIVES

| Construct | Number of Managers Having the Construct | |
|---|---|---|
| | Sandvik | Lansing |
| Good Motivator | 2 | 2 |
| Effective manager | 5 | 3 |
| Leadership | 3 | 3 |
| Charisma | 1 | |
| Persuades | 1 | |
| Inspiring | 1 | 1 |
| To Praise | 1 | |
| Authoritative | | 1 |
| Forceful | 3 | |
| Powerful | 1 | |
| Courage Impose Unpopular Ideas | | 1 |
| Courage With New Ideas | 1 | |
| Domineering | | 1 |
| Leads From the Back | 1 | |
| Soft Approach | 1 | |
| Delegation | 1 | |
| Total | 22 | 12 |

Figure 9.6

## G PASSIVE PEOPLE REACTIVES

| Construct | Number of Managers Having the Construct | |
|---|---|---|
| | Sandvik | Lansing |
| Liked | 2 | |
| Compassionate | | 1 |
| Approachable | 3 | 1 |
| Personable | 3 | 1 |
| Sociable | 4 | |
| Friendly | 1 | |
| Listens | 2 | 1 |
| Fair | 3 | 1 |
| Considerate | 2 | 1 |
| Acceptance of Weakness | 1 | |
| Helpful | 2 | |
| Supportive | 1 | 1 |
| Humane | 2 | |
| Understanding | 3 | 1 |
| Compatible | | 1 |
| Concerned About People | | 2 |
| Socially Aware | | 1 |
| Team Effort | | 1 |
| Cooperative | | 3 |
| Unselfish | 1 | |
| Tolerant | 2 | |
| Trust | 3 | 2 |
| Honest | 5 | 1 |
| Open/Straightforward | 1 | 1 |
| Genuine | 1 | |
| Direct | 1 | |
| Sincere | | 1 |
| Reasonable | 1 | |
| Not Dogmatic | 1 | |
| Total | 44 | 21 |

Figure 9.7

## H ACTIVE TRAITS

| Construct | Number of Managers Having the Construct | |
|---|---|---|
| | Sandvik | Lansing |
| Pleasant Personality | 3 | |
| Non Abrasive | 2 | |
| Aggresive | 1 | 1 |
| Outgoing/Extrovert | 3 | 1 |
| Sense of Humour | 1 | 2 |
| Well Balanced | 1 | |
| Self Control | 1 | |
| Control | 2 | 1 |
| Confident | 4 | 2 |
| Calm Approach | | 1 |
| Not Panic | 1 | 2 |
| Emotional | | 1 |
| Quiet | | 1 |
| Independent | 2 | |
| Strong Character | 1 | 1 |
| Resolute | 1 | |
| Cunning | 1 | |
| Cautious | 1 | |
| Debator | 1 | |
| Patient | 1 | |
| Non Arrogance | 1 | |
| Less Small Talk | 1 | |
| Total | 29 | 13 |

Figure 9.8

## I PASSIVE TRAITS

| Construct | Number of Managers Having the Construct | |
|---|---|---|
| | Sandvik | Lansing |
| Dispassionate | 1 | |
| Idealistic | 1 | |
| Pragmatic | 1 | |
| Common Sense | 1 | |
| Not Naive | 1 | |
| Wisdom | | 1 |
| Mature | 1 | 1 |
| Optimistic | 1 | |
| Contented | 1 | |
| Modest | 1 | |
| Broad Minded | 2 | 1 |
| Progressive | | 1 |
| Realistic | | 1 |
| Ordinary | | 1 |
| Positive Cynicism | 1 | |
| Respected | 5 | |
| Security | 1 | |
| Standards | | 1 |
| Objectives | 1 | |
| Status Concerned | | 1 |
| Smartly Dressed | 1 | 1 |
| Total | 20 | 9 |

Figure 9.9

that will affect his overall approach to work and possibly his behaviour, in a similar vein to a general work orientation. Thus, one might expect that managers who see work constructs to be important, would be different in some way to those who emphasise mental ability factors, or people constructs. The fact that, for instance, the work aspects a manager places value on and sees as important may be a mixture of what some may define as say, attitudes or traits, matters less, in this case, than the fact that they are aspects of a particular grouping and orientation.

Before consideration is given to what extent the data bear out the argument that it is the category that is important, it would seem useful, in addition to this ninefold grouping, to also emphasise the twofold distinction between the active, or proactive, or positive constructs on the one hand, (that is, categories B,C,E,F,H), as against the passive, or reactive, or neutral constructs on the other, (those in categories A,D,G,I). Again there is no clear dividing line between the two, but the distinction may help with the analysis later.

Table 9.1 below sets out for each category, the number of different constructs in each category and the total number of constructs under each heading (including those repeated by different managers) that were elicited from managers at the two organisations.

Categories and number of constructs elicited

| Category | Number of Different Constructs | Total Sandvik | Total Lansing | Overall Total |
|---|---|---|---|---|
| A.Abilities/Aptitudes | 17 | 33 | 11 | 44 |
| B.Work Skills | 26 | 42 | 27 | 69 |
| C.Positive Work Values | 31 | 45 | 18 | 63 |
| D.Passive Work Values | 26 | 44 | 26 | 70 |
| E.Developmental Constructs | 14 | 34 | 9 | 43 |
| F.Positive People Reactives | 16 | 22 | 12 | 34 |
| G.Passive People Reactives | 29 | 44 | 21 | 65 |
| H.Active Traits | 22 | 29 | 13 | 42 |
| I.Passive Traits | 21 | 20 | 9 | 29 |
| Total number | 202 | 313 | 146 | 459 |

Table 9.1

The categories with the largest number of different constructs are C and G. The categories with the largest number of total constructs elicited are D and B. The least number of different constructs are those under categories E and F, while the smallest total number of constructs elicited are those for categories F and I. The top four most elicited constructs in both companies (although in different orders of priority) are, D Passive Work Values, B Work Skills, C Positive Work Values, and G Passive People Reactives. Noteworthy, perhaps, is the small number of Developmental Constructs emphasised at Lansing. Also of note is the fewer number of constructs under F, the Positive People Reactives category. Additionally, what have been categorised as Personality Factors are also less numerous.

The Top Five Constructs

Of course, all that has been done so far is to show the kind and number of constructs that were elicited, and not necessarily their importance. Which constructs are of most importance to the managers

was guaged by taking the top five constructs on the first Component of each manager. (See appendices 9.1 and 9.2). Taking the top five constructs on Component 1 to highlight the salient constructs of an individual has been used by others, such as Norris (1968).

Number of top five constructs falling in each category

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Category | Number of Different Constructs | Total Sandvik | Total Lansing | Overall Total |
| A.Abilities/Aptitudes | 9 | 10 | 4 | 14 |
| B.Work Skills | 20 | 20 | 8 | 28 |
| C.Positive Work Values | 21 | 37 | 21 | 58 |
| D.Passive Work Values | 19 | 25 | 13 | 38 |
| E.Developmental Constructs | 9 | 9 | 6 | 15 |
| F.Positive People Reactives | 11 | 13 | 6 | 19 |
| G.Passive People Reactives | 13 | 13 | 8 | 21 |
| H.Active Traits | 11 | 10 | 2 | 12 |
| I.Passive Traits | 11 | 12 | 3 | 15 |
| Total Number | 124 | 149 | 71 | 220 |

Table 9.2

Table 9.2 above shows that three categories stand out in total (column 4) and also for both organisations (columns 2 and 3). The categories are, C Positive Work Values, D Passive Work Values, and B Work Skills. The high score for Positive Work Values is due to the inclusion in this table of 'hard work' which was omitted from the previous table. As the construct was in every managers' grid it obviously had a greater chance of selection than any other construct. However, even if one excludes 'hard work' completely from category C the total (i.e. the number of constructs placed in the managers top five, at 41) still shows this category to contain the most top five constructs.

However, knowing which constructs the managers consider most important is not very helpful without knowing which managers emphasise which

constructs. Of course, most pertinent here is whether hard working managers emphasise particular constructs in a way different to other managers.

Below Table 9.3 shows the percentage of constructs in the managers' top five, falling in each category in relation to the different external ratings of hard work.

Categories, constructs and external hard work rating

| Category | Hard Work Rating | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 1&2 | 3&4 |
| | Percent | | | | | |
| A.Abilities/Aptitudes | 0 | 4 | 7 | 9 | 4 | 7 |
| B.Work Skills | 7 | 7 | 20 | 15 | 7 | 18 |
| C.Positive Work Values | 53 | 28 | 27 | 15 | 31 | 23 |
| D.Passive Work Values | 13 | 18 | 16 | 20 | 17 | 19 |
| E.Developmental Constructs | 13 | 10 | 2 | 7 | 11 | 4 |
| F.Positive People Reactives | 0 | 11 | 8 | 9 | 9 | 8 |
| G.Passive People Reactives | 7 | 15 | 3 | 9 | 13 | 5 |
| H.Active Traits | 0 | 3 | 6 | 9 | 3 | 7 |
| I.Passive Traits | 7 | 4 | 11 | 7 | 5 | 9 |
| Percent | 100 | 100 | 100 | 100 | 100 | 100 |

Table 9.3

It can be seen that in relation to the first four columns concerned with hard work ratings, we find that categories A and B, abilities and work skills, tend to assume more importance for the less hard working managers, while category E (Developmental Constructs) are emphasised more by the harder working. There would also seem to be a transference of emphasis from positive to passive work values the less hard working managers become (from category C to D).

To some extent the above is borne out by the fifth and sixth columns in the table above (a comparison of those rated 1&2 with those rated 3&4). The less hard working managers emphasise abilities and work

skills more (categories A and B) and Positive Work Values less (category C). They also place less emphasis on Developmental Constructs (category E), but more on personality aspects (categories H and I). It is notable that the Passive People Reactives (category G), such things as honesty, trust, sincerity, are seen as important by hard working managers.

A similar table (Table 9.4) can be produced for managers in terms of their self ratings for hard work, as follows,

Categories, constructs and self hard work rating

| Category | Rating | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| | Percent | | |
| A.Abilities/Aptitudes | 1 | 11 | 4 |
| B.Work Skills | 12 | 13 | 12 |
| C.Positive Work Values | 30 | 26 | 4 |
| D.Passive Work Values | 21 | 17 | 16 |
| E.Development Constructs | 10 | 4 | 8 |
| F.Positive People Reactives | 8 | 9 | 12 |
| G.Passive People Reactives | 8 | 10 | 16 |
| H.Active Traits | 6 | 3 | 8 |
| I.Passive Traits | 4 | 7 | 20 |
| Percent | 100 | 100 | 100 |

Table 9.4

Category C (Positive Work Values) shows a declining emphasis on these constructs the less hard working the managers are. There also, again, seems to be some kind of reversal in relation to the less hard working the managers rate themselves, from emphasising the more dynamic to the more neutral or passive work values (a move from category C to category D). But it seems that the least hard working managers (those with a self rating of 3) tend to place more importance on other categories than on work values, (categories C and D). Categories F and G, for instance, account for 28% in the third column, as against 16% in

the first, and categories H and I account for 28% in the third column and 10% in the first.

What conclusions, then, can be drawn from this? It would seem that both externally rated and self rated managers with high ratings for hard work, tend to emphasise different types of constructs to those less hard working. There are differences between externally rated and self rated managers, but the emphasis seems, for both, to centre on those constructs categorised as work constructs. Additionally, for the externally rated managers, greater emphasis seems to be given to Developmental Constructs.

Even so, despite this conclusion, aggregated data can hide quite important aspects and lead one to make assumptions which further disaggregation of the data shows to be less than straightforward. For instance, the emphasis of the harder working managers on category C (Positive Work Values), the fact that 'hard work' is included in this category, and the arguments that have gone before in the thesis, about the notion of hard work in relation to the different aspects of self, might lead one to conclude that the hard work construct will be particularly emphasised by hard working managers, but not by the less hard working. To some extent this is true, but the picture is not clear and only further inspection of the data can help in understanding a quite complex notion.

## Hard Work and Associated Constructs

Hard work is included in the top five constructs of 17 of the 44 managers. A greater number of hard working managers (i.e. those with an external rating of 1 or 2) include it (Sandvik, C,J,M,Q,Z: Lansing, A,G,K,L) than those not so hard working (rating of 3 or 4) (Sandvik, D,E,G,P,T,U: Lansing, H,N). But the difference is not great and it does not account for the rest of the managers (12) with a rating of 1 and 2 who do not include it.

In order to help understand why some not so hard working managers seem to include the notion of hard work high in their construct priorities, an attempt has been made to consider what the notion of hard work might mean to these managers, or rather, at least, with what other constructs they associate the notion of hard work. In this case, use has been made of the table of construct correlations given in each individual repertory grid print-out which indicates with which other constructs the managers associate hard work. (See appendices 9.1 and 9.2). In addition, further use is made of the managers' top five constructs on Component 1.

The first manager to be considered, manager E (Sandvik), has a relatively low external hard work rating of 3. His first five constructs are, 'hard work', 'good communicator', 'effectiveness', 'responsible' and 'adaptability'. Three of these, 'good communicator', 'responsible' and 'adaptability', fall into the category of passive, or reactive, rather than proactive constructs, as outlined earlier. However, this manager closely associates hard work with 'good communicator', and one might conclude that the manager's conception of hard work may well be different from more widely used notions of hard work, and possibly have different behavioural consequences.

Manager G's (Sandvik, external hard work rating of 3) first five constructs are, 'responsible', 'capable', 'tolerance', 'reasonable' and 'hard work'. As above, reactive rather than proactive constructs predominate. The construct which correlates with hard work is 'tolerance' and again this might suggest that the manager does not see the concept in a particulary dynamic way, or necessarily in a way that is generally accepted.

One explanation might be that while these managers see hard work as important, possible reasons for them not being hard working are that passive constructs are more dominant for these managers, and also because hard work is seen as a passive notion rather than a proactive or dynamic one.

This latter point is further supported by manager P (Sandvik, external hard work rating of 4) who closely associates hard work with 'forward thinking', manager T (Sandvik, rating of 3) who associates it with 'capable', manager U (Sandvik, rating of 4) who associates it with 'paying interest' and 'diligence', and manager H (Lansing, rating of 4) who associates it with 'leadership/respect' and 'good presentation'. One can contrast this with the managers who include hard work in their top five constructs, who associate the notion more positively or proactively, and who are generally more hard working. Manager C (Sandvik, rating of 2) associates it with 'making things happen'; manager J (Sandvik, rating of 2) with 'achiever' and 'ambitious'; M (Sandvik, rating of 2) with 'positive nature'; Q (Sandvik, rating of 2) with 'successful' and 'effective'; Z (Sandvik, rating of 1) with 'committed to the job'; A (Lansing, rating of 1) with 'dedication', 'enthusiasm', 'desire to improve' and 'ambition'; L (Lansing, rating of 2) with 'keenness' and 'fast worker'. Indeed, it is not so surprising, perhaps, to find that managers who associate hard work with constructs like 'achiever' and 'ambitious', or 'successful' and 'effective', are more hard working, than those who associate hard work with 'forward thinking'.

However, while in general there would seem to be some distinction in the behaviour of the different managers who see hard work as an important construct, but who relate hard work to other constructs in various ways, extending the analysis is not straightforward. The same analysis does not seem to so easily explain why some hard working managers associate hard work with passive constructs. Manager I (Sandvik), with an external rating of 2, associates it with 'fair', while L (Sandvik), also with a rating of 2, associates it with 'knowledgeable'. Nor does it explain why some not so hard working managers relate the notion to more proactive constructs, as with manager F (Sandvik, rating of 3) who associates it with 'ambition' and 'aggresive'.

Nevertheless, although there are exceptions, the general argument can be extended, and there are, for instance, some not so hard working

managers for whom the analysis still holds. For instance, manager H (Sandvik, rating of 3) associates hard work with 'conscientious' and 'thorough'; manager R (Sandvik, rating of 3) with 'capable' and 'logical'; manager S (Sandvik, rating of 4) with a 'sense of position'. Moreover, the earlier argument that hard working managers, in general, emphasise more proactive values or items, in their top five constructs, while not so hard working managers have more passive constructs, helps to explain the difference in external hard work ratings for some of the remainder of the managers. For instance, manager L's (Sandvik) five constructs are 'positive', 'successful', 'forceful', 'decisiveness', and 'leadership', while manager O's (Sandvik) are, 'achievement', 'adaptable', 'decisive', 'positive approach' and 'ambition'. Both managers are externally rated as 2 for hard work. Manager D's (Lansing) five constructs are 'straightforward', 'enthusiastic', 'full commitment', 'constructive' and 'purpose', and manager O's (Lansing) constructs are 'communicates well', 'achieves objectives', 'high performer', 'reasonable' and 'committed'. Manager D has an external effort rating of 2, and manager O, one of 1.

Moreover, on the other hand, there are less hard working managers who also emphasise less dynamic concepts. For instance, manager K (Sandvik, rating of 4) has, 'analytical', 'intellectual ability', 'meeting objectives', 'problem solver' and 'courage with new ideas'; manager W (Sandvik, rating of 3) has, 'understanding', 'loyalty', 'cooperation', 'security', and 'education on life'; manager Y (Sandvik, rating of 3) has, 'respect', 'depth of thought', 'positive', 'flexible', and 'capable'; manager NB (Sandvik, rating of 3) has 'lead from the back', 'ability to summarise', 'analytical mind', 'depth of vision', and 'broad outlook'; manager ND (Sandvik, rating of 4) has, 'sees priorities', 'intelligent', 'ambitious', 'economic in effort' and 'cunning'. The latter two would hardly seem to be conducive to hard work. In addition, manager C (Lansing, rating of 4) has, 'self motivated', 'trustworthy', 'strong character', 'reliable', and 'wide scope', while manager J (Lansing, rating of 4) has 'constructive', 'self motivation', 'uses intiative', 'flexible' and 'realistic support'.

## Conclusion

This chapter has highlighted a number of factors that might be considered to contribute to an explanation for hard work or the lack of it. Managers who place hard work in their top five constructs and who associate hard work with proactive constructs, tend to be more hard working than those who associate the notion with passive constructs. With regard to managers who do not hold hard work among their top five constructs, the managers externally rated as harder working tend to emphasise more proactive constructs (especially those in categories C and F) than less hard working managers.

What have been outlined above are the mental patterns, in terms of constructs, that seem to be linked to a particular behavioural tendency. There is a problem with this, that of causality, which has been raised before. Nevertheless, the important point is that whatever the causality, particular mental orientations have been shown, in some detail, to be associated with hard work, or lack of it. 'Traditional' notions of need and 'traditional' external incentives play no part in the analysis. This, of course, is not to argue that these latter two are unimportant in understanding motivation, but it does indicate not just that there is another area, related to values/belief systems that has a link with motivation, but more importantly, the above specifies what the major value/belief systems may be.

The implications of this, in practical terms, of course, are quite considerable if the analysis holds true for managers in general. Hard working managers might be cultivated, not only, or perhaps in some cases at all, by traditional incentives, but by attempting to inculcate in them certain types of values, or change what the notion of hard work means to them. Fortunately, or unfortunately, such manipulative notions may not be so straightforward as very few writers, as the earlier reviews of the literature indicate, have produced evidence to support theories of value or construct change, and those who have, for instance, those in the area of cognitive dissonance theory, could

hardly claim to have removed controversy from the area. But there is some round-about evidence in the thesis to suggest that such value change may be possible. Although a repertory grid instrument was not used with the engineers at Massey Ferguson, the notion of thoroughness seemed to be highly valued by many of the engineers. At Lansing, thoroughness was also seen as important by the engineers, but possibly not to the same extent, and some managers (e.g. manager G Lansing) felt thoroughness was no longer as important as efficiency. There may be a number of reasons for this, but the culture of the organisation would seem to be particularly important. At Massey the engineers were isolated from the rest of the plant and possibly able to maintain traditional values against outside influence. At Lansing the engineers were not working together and mixing in their own common culture, and to maintain values that were out of step with those that the company was implicitly trying to inculcate, and others seemed to accept, may have been less easy.

To suggest that dominant cultural views, generated by an organisation, may be related to how managers behave is hardly anything new. However, the sometimes negative consequences of companies' attempts to motivate the workforce through 'good communication' and 'positive thinking', suggest the process of value and cultural change is hardly simple or straightforward. The difference that a methodology like the above might make is that it could give a more accurate idea of the values or orientations that managers have. Thus having a good idea of one's starting point, achieving a value change may be possible through a more systematic process.

How morally acceptable such an approach may be is debatable. In a year (1984) when Orwellian notions of mind control are at the forefront of the popular media, the notion of changing an individual's values through a systematic and deliberate process is hardly without controversy. The trouble with arguments of this kind is that although baldly stated the idea of mind control may be morally indefensible, when considered in certain contexts it may be less so. Is it morally indefensible to inculcate values of love and peace into our children,

for instance, or adults for that matter? Is it also morally indefensible to get people to work hard by offering incentives? In both cases whether defensible or not, they are both widespread and 'acceptable' practices. Nevertheless, even though some inculcation of values may be acceptable, as with the practice of motivating people at work, getting people to work hard by way of value change still has an immoral ring to it. The researcher, in an attempt to avoid a lengthy moral debate, can justify his research by arguing that his role is to research problems. How his research is used is not a moral problem for him, but for those who use it. Readers who may feel that this is sidestepping the issue may take solace in the fact that the issues may not yet need to be faced. The above analysis is not watertight. There are still a number of managers, (for instance D, Sandvik, and N, Lansing) to whom the above explanations would not seem to apply.

Nevertheless, while the above is hardly a blueprint for the psychological control of the workforce, there are patterns evident which can be further understood by additional disaggregation of the data. This is explored in the next chapter where a number of individual case studies are considered.

# CHAPTER 10

# REPERTORY GRID ANALYSIS PART III
# INDIVIDUAL ANALYSIS

## Introduction

This chapter presents a number of case studies which combine the two data collection approaches of repertory grid, and interviews. The chapter illustrates how, together, the two approaches can complement each other to give additional insights into the managers' self concept and motivation.

Four problem areas are investigated in the chapter through the use of the case studies. The first three problems are important in relation to motivation. These first three areas of investigation are concerned with the following;

A) why some managers who are frustrated with their pay continue to work hard.
B) why some managers show a big discrepancy between their own assessment and the external assessment of hard work.
C) why some managers do not work hard, both in terms of their self and the external hard work rating.

Two case studies are presented exploring each of these problems, making six studies in total. Additional studies, further investigating each problem are presented in the appendices.

As a result of examining these problems, a further area of investigation arose. The fourth area, area D), looks at the consequences of having an organisation self that is 'abnormal' in some way. Two studies are presented to illustrate the phenomenon. The chapter concludes by analysing the possible consequences of differing organisation selves.

A) Motivation and Pay

The first area of investigation looks at why some managers who are frustrated with their pay and see pay as important, nevertheless, do not seem to have reduced their effort.

Manager A (Lansing)

Mr A is Production Control Manager responsible for a staff of about 70 people. He is 38 and has been with the company for 19 years.

Mr A considers himself to be a professional administrator doing a job that is very important to the company. He has few frustrations with the job as the company has been introducing a technically advanced production system which he has been able to influence and which he finds exciting.

He sees himself as an organiser, rather than a technical specialist. He feels he is ambitious, although he is not looking for promotion in the near future. He likes setting objectives and achieving them, and gets satisfaction from influencing people. He feels he has two main motivators. The first is in using his influence and getting people to do things his way. His other, equally important motivator, is pay.

Mr A has one overwhelming frustration and that is his pay. He makes a number of comparisons both inside the firm and with outside national pay averages, and on both counts he feels his pay is low. His boss has told him he is underpaid and that there is nothing wrong with the way he does his job. He intends to leave the company within the next month, unless his pay is increased. He feels he gets on well with his boss.

The assessment of Mr A by senior managers is that he is committed and is the most hard working of all the managers interviewed at Lansing, (hard work rating of 1). He is well organised and gets a good response from his employees. He is ambitious and senior managers are aware he may leave the company because of his frustration over pay.

This manager seems to illustrate well a phenomenon that became evident from the pilot study. This is that the manager is very frustrated with his pay, yet still works very hard. Moreover, his frustration is not a recent development. When he took on the job two years ago, he was told he would not receive the same renumeration as his predecessor, because of the difficulties the company was going through. This he accepted to some extent until last year when the company started replacing some of the managers' cars with newer models which he saw as a sign the company now had spare cash. Despite protestations, nevertheless, his pay did not increase.

Thus, this manager values pay highly as a reward, fails to get what he thinks is adequate, yet does not diminish his effort, either on his own assessment or that of others. He is frustrated and wants to leave the company, but it would not seem to greatly affect his work performance.

A number of reasons might be put forward to explain this. The first, which was highlighted in the initial study and which has been highlighted by many other writers, would seem to be that the manager enjoys his job. The second may be his length of service, although this may explain more why he stayed with the company for so long despite being frustrated with his pay, rather than his reason for working hard. The third may be due to his boss and the encouragement he has given to maintain the manager's motivation. Finally, of course, it could have something to do with his self concept. The repertory grid helps indicate that this latter reason may be of some importance.

His constructs are as follows;

1. Hard working - Not Hard working
2. Understanding - Impatience
3. Enthusiasm - Uncommitted
4. Compassionate - Ruthless
5. Diligence - Not diligent
6. Ambition - Lack of ambition

7. Desire to Improve Things - Complacency
8. Dedication - Lack of Dedication
9. Proper Management of People and Situations - Ill Management of People and Situations
10. Fairness - Thoughtless Management
11. Courage to Impose Unpopular Decisions - Takes Soft Option
12. Imparts Self Esteem to Subordinates - Failure to Recognise Subordinates' Needs

The constructs are predominantly from three of the categories outlined in chapter 9; Positive Work Constructs (constructs 3,7 & 8); Passive People Reactives (constructs 2,4 & 10); and Positive People Reactives (constructs 9,11 & 12). His emphasis on people constructs ties in with his comments in the interview that one of his prime motivators was in managing people. However, if one turns to Component 1 (Figure 10.1) which accounts for 74% of the variance, his top five constructs (i.e. those with the largest negative score), are, C1 hard work, C8 dedication, C5 diligence, C3 enthusiasm, and C7 desire to improve things. His least important constructs, (i.e. those with the lowest negative score), on this dimension are, C2 understanding, and C4 compassionate. On Component 2, which accounts for 15% of the variance, C4 compassionate, and C2 understanding, are at opposite ends to C11 courage to impose unpopular decisions, but also C6 ambition. It would seem that he would like to be compassionate and understanding, but feels he is unlikely to get on if he is.

Thus, it would seem plausible that with the five constructs noted above, (hard working, dedication, diligence, enthusiasm, and desire to improve things), dominant in his construct system, the manager should continue working hard despite his frustration with pay. Moreover, if we look at his distance between elements (Table 10.1a), and construct/element relations (Table 10.1b) further insights become evident. The manager has a very close present self/organisation self, E1/E12, distance (.183) indicating high organisation esteem, and his present (E1) and organisation (E12) selves are fairly close to his two bosses (E2 & E3). It is notable that his second closest distance is that of

Component Scores (Construct Loadings)

Manager A (Lansing)

| Component 1 | | Component 2 | |
|---|---|---|---|
| Construct | Score | Construct | Score |
| 2 | -.168 | 4 | .851 |
| 4 | -.443 | 2 | .825 |
| 9 | -.837 | 12 | .358 |
| 12 | -.848 | 10 | .190 |
| 6 | -.860 | 9 | -.020 |
| 11 | -.861 | 7 | -.038 |
| 10 | -.924 | 1 | -.080 |
| 7 | -.938 | 8 | -.080 |
| 3 | -.965 | 3 | -.117 |
| 5 | -.978 | 5 | -.119 |
| 8 | -.985 | 6 | -.231 |
| 1 | -.985 | 11 | -.413 |

Manager L (Lan.)

| Component 1 | |
|---|---|
| Construct | Score |
| 4 | -.568 |
| 12 | -.599 |
| 8 | -.820 |
| 9 | -.893 |
| 3 | -.918 |
| 11 | -.929 |
| 10 | -.932 |
| 6 | -.954 |
| 7 | -.966 |
| 2 | -.971 |
| 1 | -.972 |
| 5 | -.985 |

Figure 10.1

(The scores or loadings are obtained by multiplying coefficients of constructs by the square root of the latent root)

Manager A (Lansing)

Distance between elements (Expressing relationships between elements)*

| | Scores | | |
|---|---|---|---|
| Element | E1 | E10 | E12 |
| 1 | -- | .472 | .183 |
| 2 | .332 | .625 | .396 |
| 3 | .449 | .694 | .499 |
| 4 | .323 | .399 | .371 |
| 5 | 1.764 | 1.951 | 1.833 |
| 6 | .486 | .634 | .580 |
| 7 | .943 | 1.212 | .968 |
| 8 | .205 | .312 | .275 |
| 9 | 1.556 | 1.588 | 1.633 |
| 10 | .472 | -- | .436 |
| 11 | .319 | .491 | .308 |
| 12 | .183 | .436 | -- |

Table 10.1a

*(The relationships are expressed around 1, with a lower limit of 0 and an upper limit of 2)

Relations between constructs and self elements (Degrees)+

| | Scores | | |
|---|---|---|---|
| Construct | E1 | E10 | E12 |
| 1 | 28.1 | 42.8 | 26.9 |
| 2 | 91.7 | 49.4 | 92.5 |
| 3 | 31.7 | 44.1 | 32.2 |
| 4 | 63.7 | 41.3 | 65.4 |
| 5 | 24.9 | 45.2 | 23.6 |
| 6 | 48.8 | 51.5 | 41.3 |
| 7 | 35.1 | 41.8 | 34.7 |
| 8 | 28.1 | 42.8 | 26.9 |
| 9 | 35.1 | 46.3 | 20.6 |
| 10 | 25.3 | 35.8 | 28.5 |
| 11 | 36.8 | 59.0 | 36.1 |
| 12 | 25.7 | 34.2 | 29.2 |

Table 10.1b

+(The scores or degrees express relationships between constructs and elements, with 90 corresponding to a correlation of 0.0)

present self (E1) and person likely to get on (E8) (.205), perhaps confirming his ambitious nature and the feeling that he can progress. His close E1/E12 distance may be one reason why he has stayed with the company despite his frustration with pay. His close present self/ideal self, E1/E10, (high self esteem) may, on the other hand, explain why he still has the confidence to move after 19 years, and with no formal qualifications.

This information can be plotted diagrammatically and is shown in Diagrams A1, A2 and A3. Diagram A1, using the information in Table 10.1a shows the position of each of the managers' elements on the two dimensions, present self (E1) and ideal self (E10). The elements numbered 2,3,4,6,8,11 and 12, falling in the left hand quarter of the diagram, indicate that these elements are seen similarly in terms of both the present and ideal selves and also that there is fairly close identification by the manager with these elements in terms of his present and ideal selves. Elements 9 and 5, in the opposite quarter to the elements above, show that there is agreement on how these two elements are seen in relation to the present and ideal self. However, while there is agreement between the present and ideal self, the elements 5 and 9 themselves are seen as being very dissimilar to the manager's notions of present and ideal self. Element 7, in the left hand quarter shows that this person is seen as slightly similar to the present, but not to the ideal self. An element situated in the bottom right hand quarter would indicate similarity with the ideal self, but not the present self.

Diagrams A2 and A3 display information taken from Table 10.1b. Diagram A2 shows the position of the manager's constructs in relation to his present (E1) and ideal self (E10) which are held in similarly high positions in both his E1 and E10 construct systems, except for construct 2 which is seen more like the ideal than the present self. Diagram A3 shows the manager's constructs in relation to his present (E1) and organisation self (12). Again the constructs are seen as similar in terms of both his present and organisation selves. The difference here is that construct 2 is not associated either with the manager's present or organisation selves.

Manager A (Lansing)

DISTANCE BETWEEN ELEMENTS

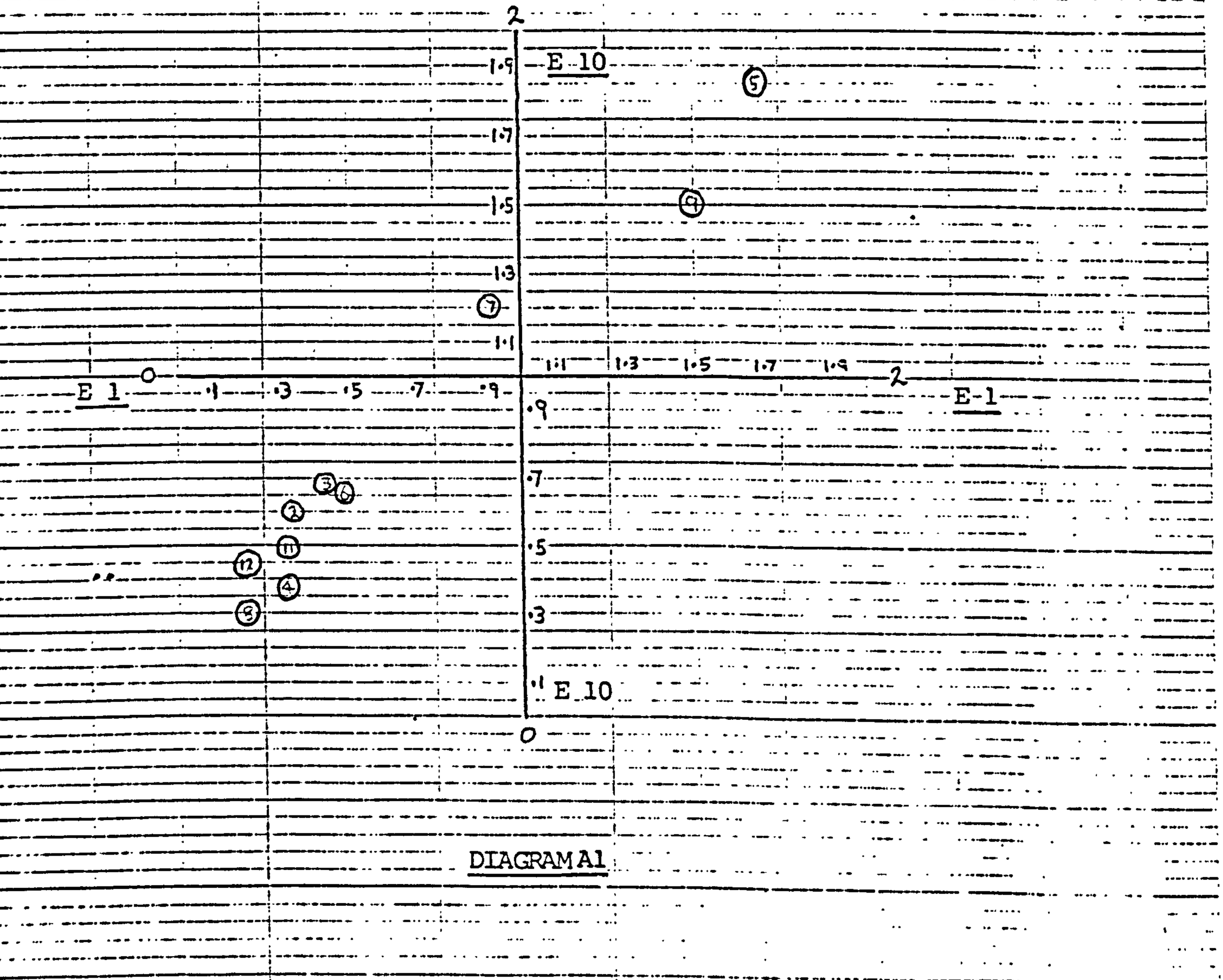



DIAGRAM A1

Manager A (Lansing)

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

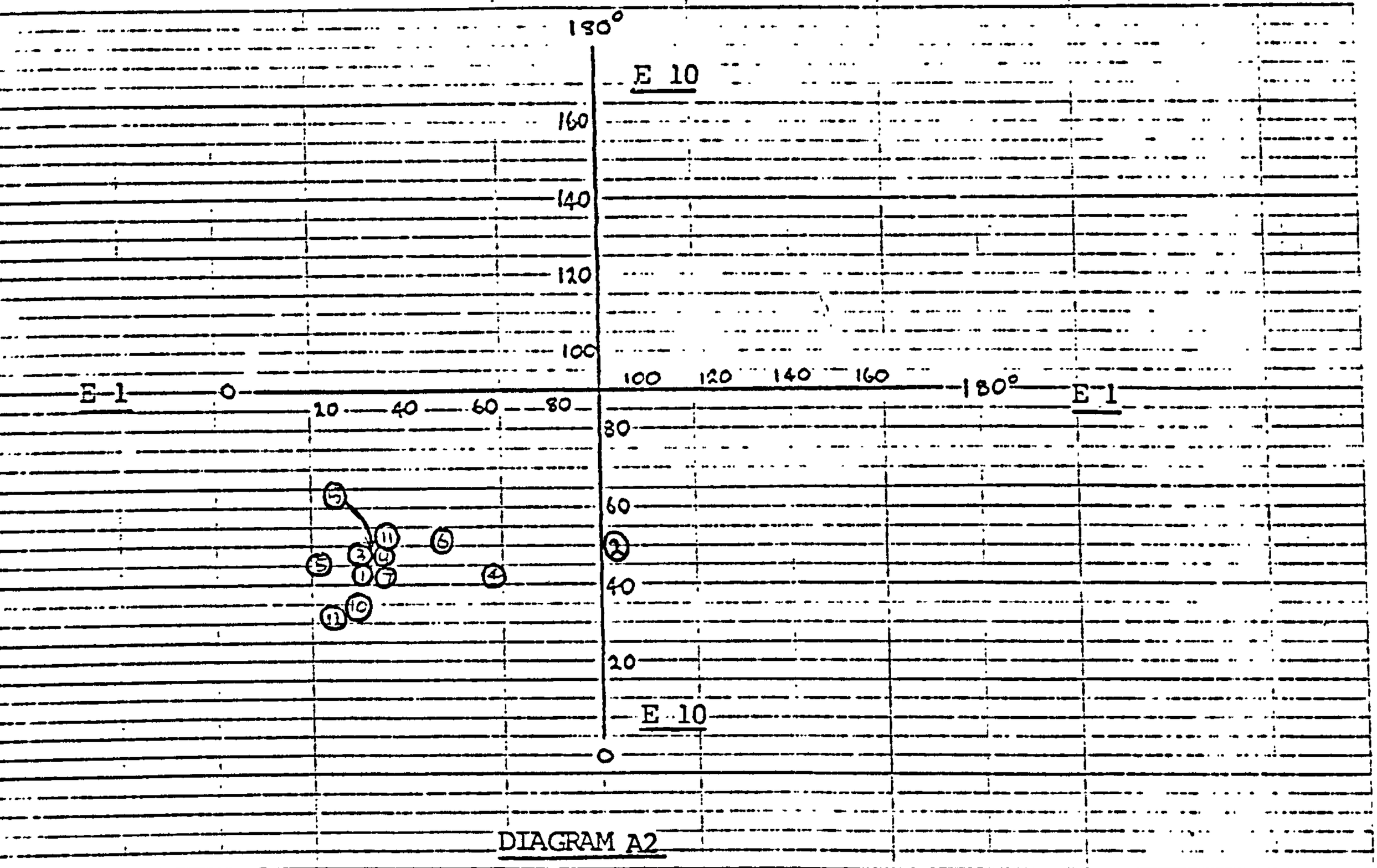



DIAGRAM A2

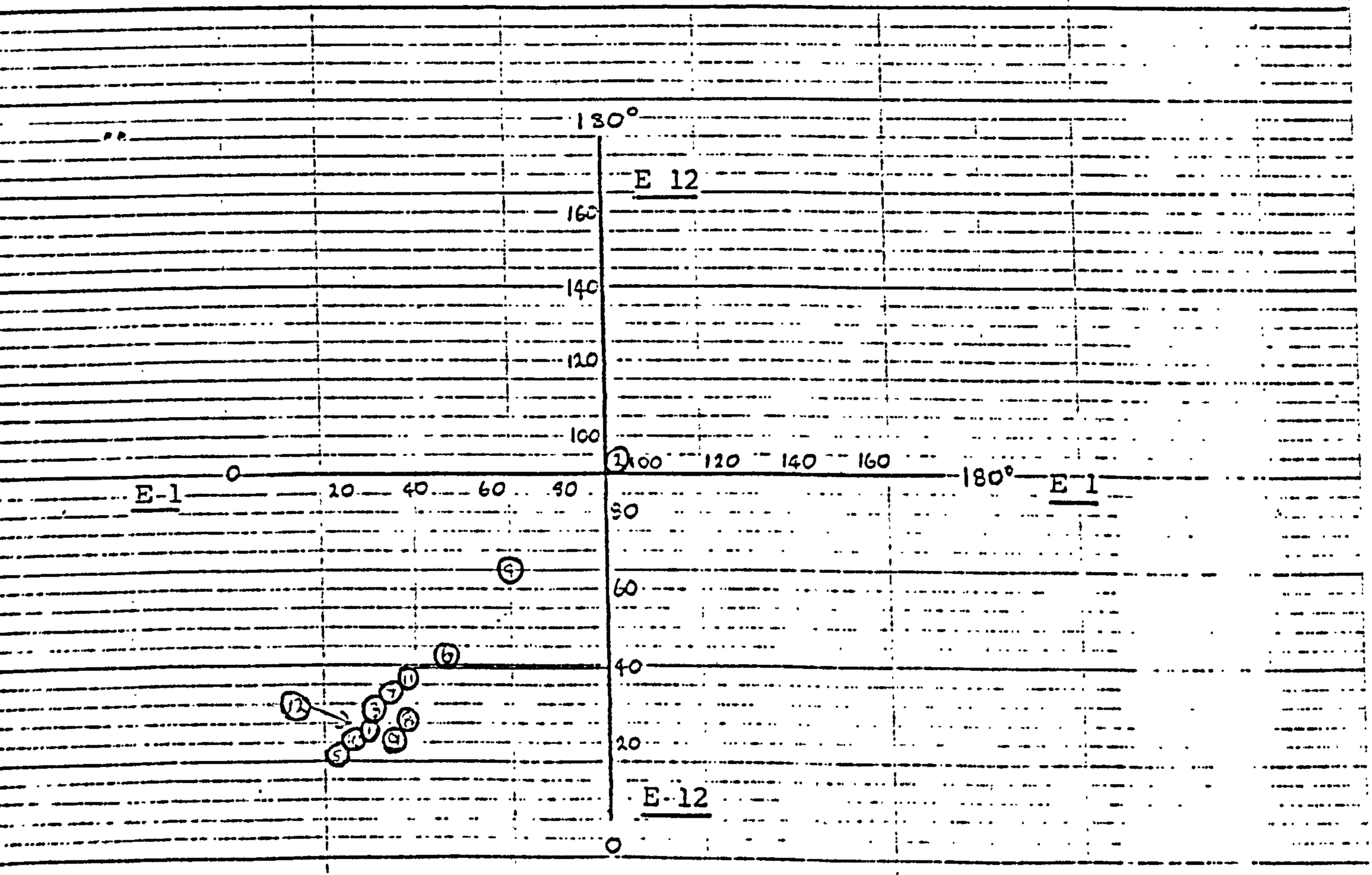



DIAGRAM A3

In summary then, A2 & A3, display graphically the manager's fairly close self concept views of the world, and, diagram A1, his feelings of similarity with liked colleagues (elements 2,3,4,6 & 8) and disimilarity with unfavourable colleagues (elements 5,7 & 9).

Manager L (Lansing)

Mr L is the Production Engineering Manager responsible for the planning department and toolroom. He is also responsible for the development and application of robotics in the company which now takes 95% of his time. He is 45 and has been with the company for 30 years. He sees himself as a professional engineer who treats engineering as a hobby as well as a work pursuit.

Mr L spends 60% of his time on the shopfloor where robots are built and developed. He enjoys working with the new technology which is very different from his production engineering role. He is involved in producing an integrated handling package which involves working with original specifications through to producing the final product. Mr L sees it as more of a general management role and he enjoys the change, variety and broader experience.

Pay is important to him and he feels underpaid in view of his range of responsibility. He is also promotion conscious. He feels that other managers with the same responsibility have divisional manager status which is a promotional band one step higher than his own.

He does not let either of these things greatly worry him and he has not looked for a job outside as he understands the company's difficulties. He enjoys working for the company and has always had a good range of work which has been interesting and challenging. Nevertheless, he feels that if the robotics grew and he was not compensated he would take action.

The senior managers' assessment of Mr. L is that he is a talented production engineer and designer who works hard (rating of 2). He is

introspective, quiet, but sound. He generates excitement and handles people well. He has both technical and management ability.

Thus again, we have a manager who feels pay is important and also, in this case, promotion, yet who feels he is not adequately compensated in terms of either, and yet still works hard. Again, the main reason for this would seem to lie in the fact he enjoys his job. But again the repertory grid analysis reveals that it may not be this alone and that the concepts he regards as important and reflecting the image he has of himself may explain his continued effort and his desire to stay with the company.

Mr L's constructs are as follows;

1. Hard working - Not hard working
2. Keenness - Lacks keenness
3. Thorough - Lazy
4. Smart - Sloppy
5. Fast Worker - Slow
6. Foresight - No foresight
7. Company Man - Not a company man
8. Reliable - Not reliable
9. Confident - Shy
10. Loyal - Indifferent
11. Consistent - Non consistent
12. Good tech(nical ability) - Tech. ordinary

The construct pattern is different from that of the previous manager. This may reflect a difference in their disciplines. Mr L, an engineer, not very surprisingly, highlights thoroughness (construct 3), reliability (8), consistency (11) and being good technically (12). The fact also, that he has constructs for both loyalty (10) and being a company man (7) would help explain his reluctance to leave the organisation. It is also noteworthy that despite having constructs of reliable (8), thorough (3) and consistent (11), he also has the construct fast worker (5), a notion that at Massey-Ferguson was considered to be lacking amongst the engineers and a possible reason for their complacency.

In considering Component 1 (Figure 10.1 earlier) which accounts for 79% of the variance, the reason why a 'thorough' engineer should also be seen as a hard worker becomes evident. His top two components, (i.e. those with the largest negative scores), are, C5 fast worker, and C1 hard working, with C2 keenness, next, which in this thesis are seen as positive constructs. His least important constructs are, C4 smart, and C12 good tech.

His element distances and construct/element relations are also interesting. His self element distances (Table 10.2a) are very close to the other 'acceptable' elements (that is, all except elements 5,7, & 9). His present self/organisation self distance (E1/E12) is very close (.106) as are his present self and bosses, E1/E2 (.106) and E1/E3 (.188). His E2/E12 distance at 0 means he sees his organisation self as exactly the same as he sees his boss.

Table 10.2b shows that his construct/element distances are extremely close and he too displays very 'normal' diagrammatic plots illustrated in Diagrams B1,B2 & B3.

In view of this one can see why the manager might accept limited rewards. His close identification with the company and the constructs he holds would seem to be a strong reason for his continued effort despite his frustration over major rewards. Why this manager is not particularly keen to leave the company, whereas the previous manager is prepared to go, may have something to do with things like family commitments (manager A is single) and other factors, but the fact that this manager places constructs like 'company man' and 'loyalty' high in his construct system must have some bearing.

Manager L (Lansing)

Distance between elements (Expressing relationships between elements)*

| Element | Scores E1 | E10 | E12 |
|---|---|---|---|
| 1 | -- | .188 | .106 |
| 2 | .106 | .155 | .000 |
| 3 | .188 | .311 | .155 |
| 4 | .436 | .420 | .448 |
| 5 | 1.817 | 1.864 | 1.845 |
| 6 | .340 | .471 | .387 |
| 7 | 1.366 | 1.470 | 1.394 |
| 8 | .245 | .374 | .340 |
| 9 | 1.284 | 1.350 | 1.323 |
| 10 | .188 | -- | .155 |
| 11 | .106 | .263 | .212 |
| 12 | .106 | .155 | -- |

Table 10.2a

Relations between constructs and self elements (Degrees)*

| Construct | Scores E1 | E10 | E12 |
|---|---|---|---|
| 1 | 18.2 | 28.1 | 21.6 |
| 2 | 13.3 | 27.1 | 19.2 |
| 3 | 25.9 | 33.5 | 30.6 |
| 4 | 47.5 | 48.9 | 50.2 |
| 5 | 10.9 | 18.9 | 14.2 |
| 6 | 9.9 | 22.0 | 15.4 |
| 7 | 19.4 | 35.5 | 24.9 |
| 8 | 41.5 | 52.4 | 44.2 |
| 9 | 29.3 | 25.3 | 16.4 |
| 10 | 27.2 | 38.0 | 29.6 |
| 11 | 28.2 | 38.5 | 31.3 |
| 12 | 50.0 | 35.0 | 51.4 |

Table 10.2b

*(See page 236)

Manager L (Lansing)

DISTANCE BETWEEN ELEMENTS

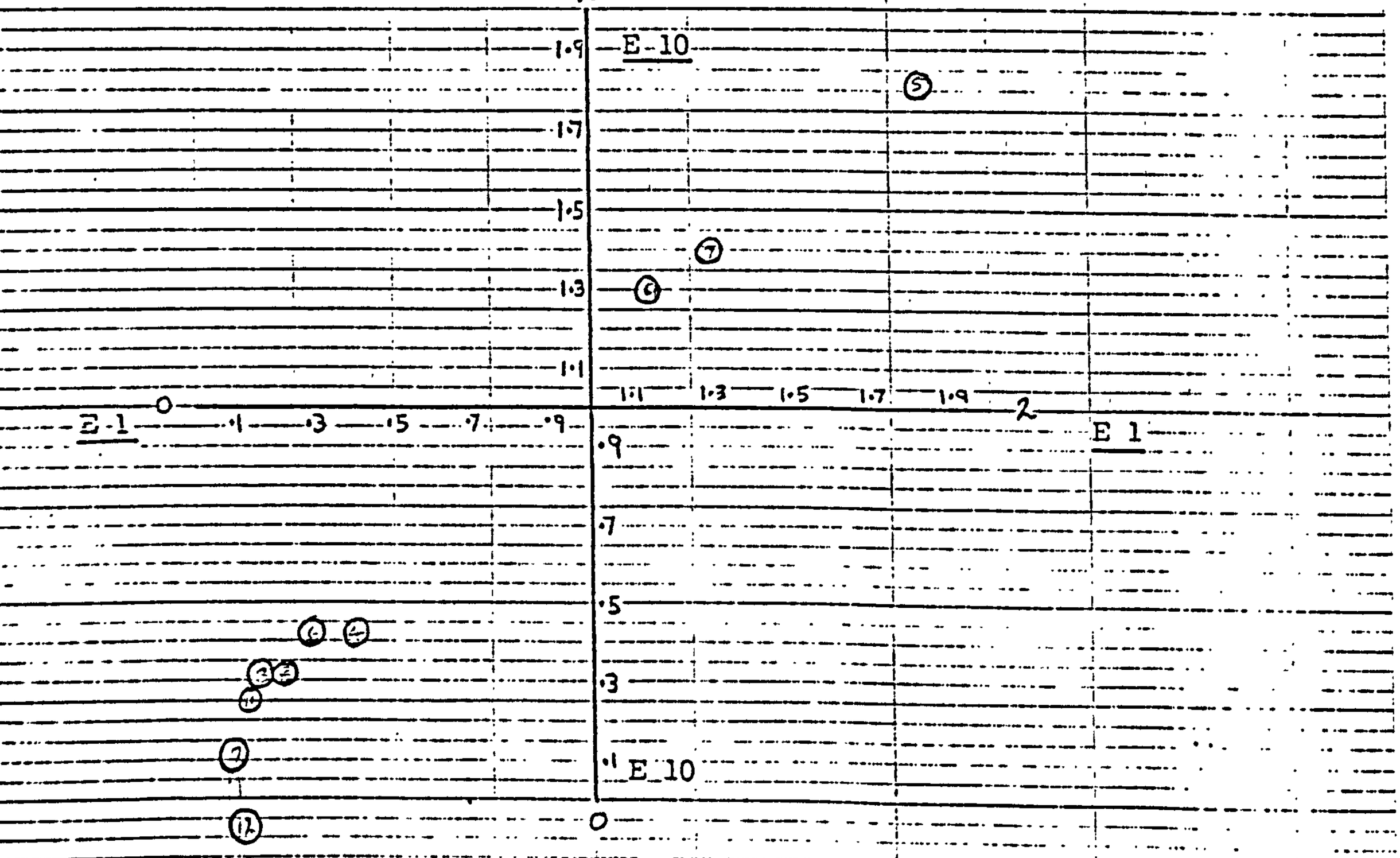



DIAGRAM B1

RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

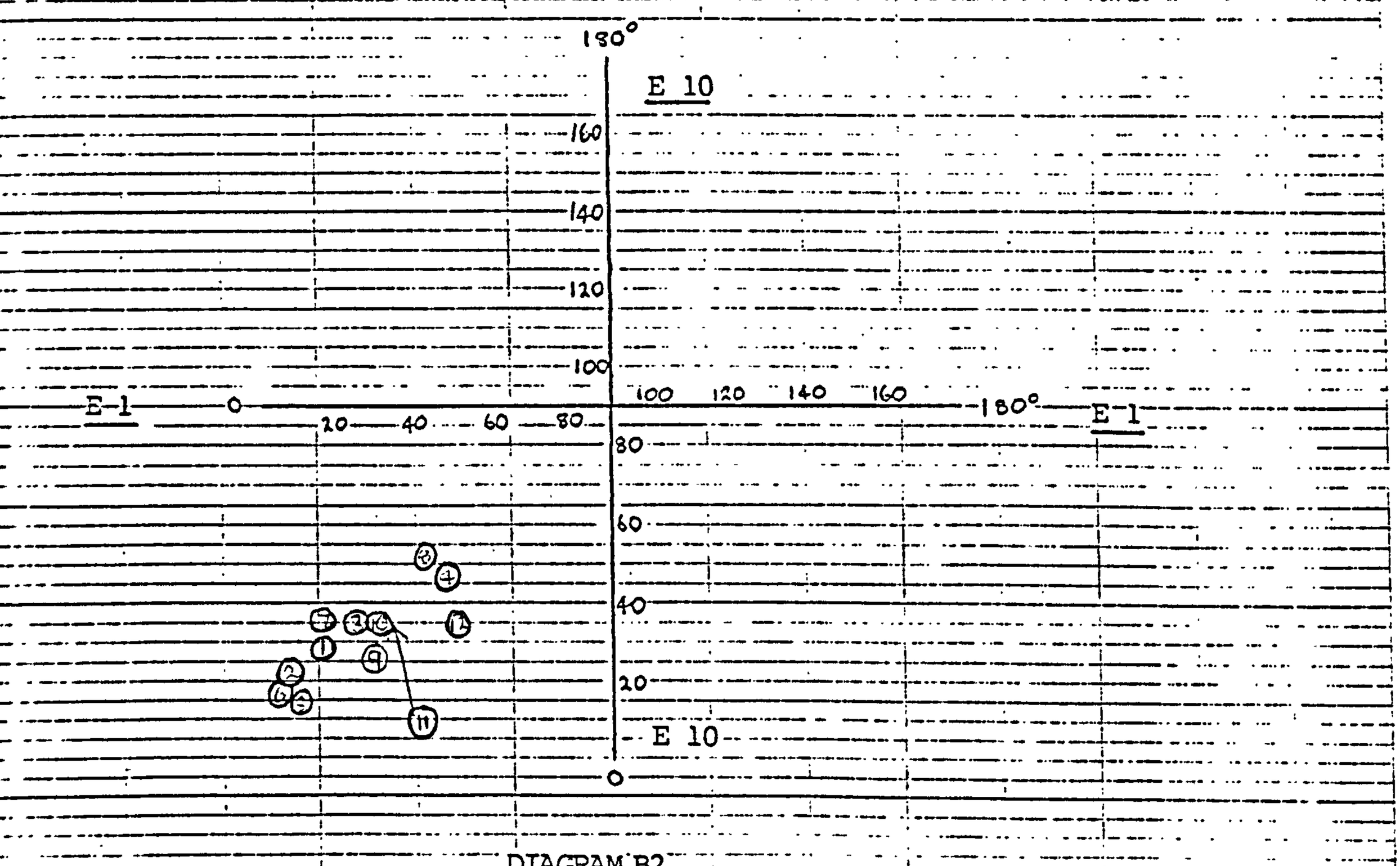



DIAGRAM B2

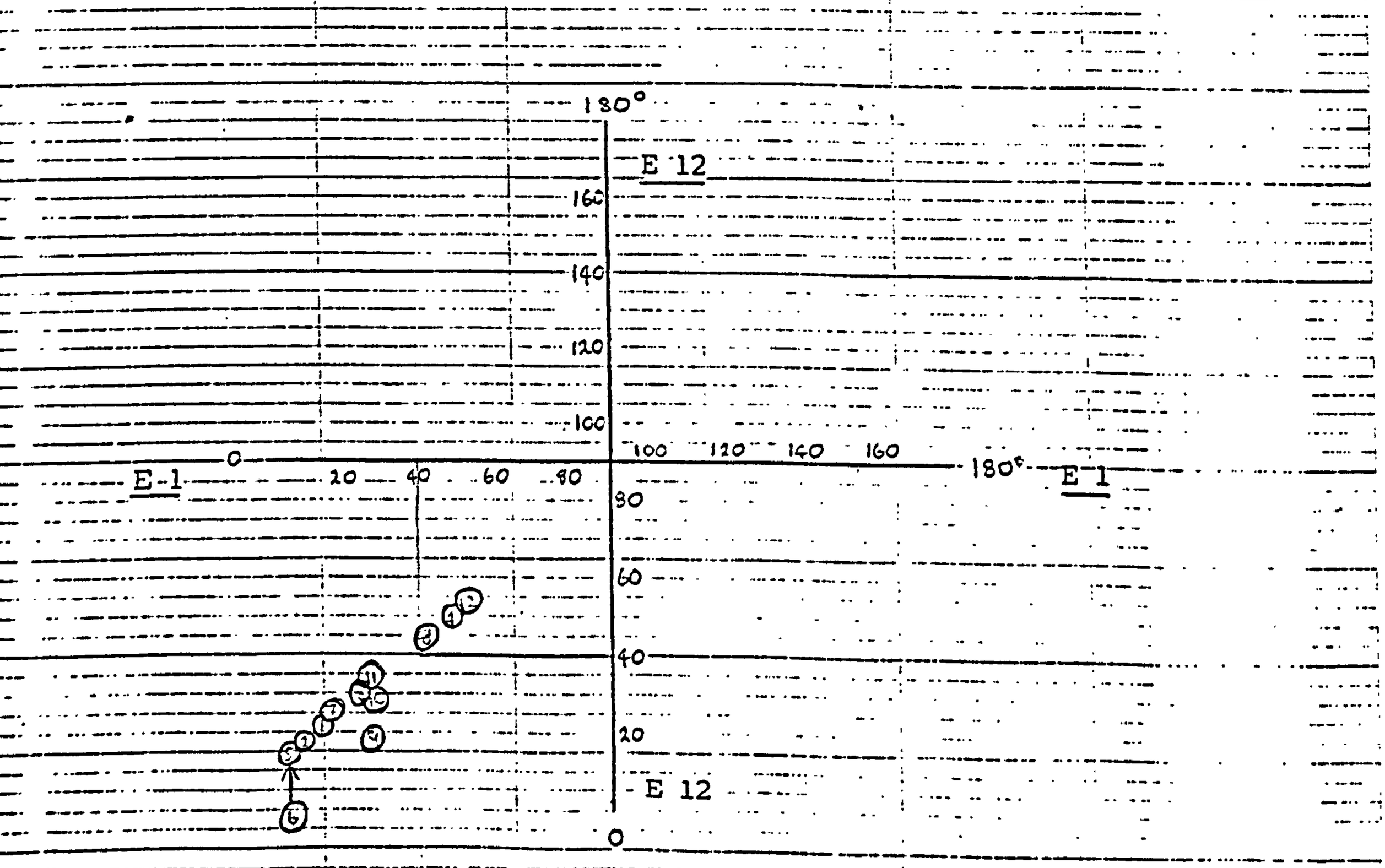



DIAGRAM B3

## Conclusion

This section is illustrates why managers continue to work hard despite the lack of traditional rewards, which remain important to them. There are some differences between the two managers, but the case studies are meant to demonstrate that it is not really possible to ignore individual analysis without losing some understanding. In the case of manager A, although managing people motivated him, his constructs indicated that to get ahead he may be unable to be compassionate and understanding. In the case of manager B, although claiming he might leave the company if the robotics side grew and he was not remunerated, his emphasis on constructs of loyalty and company man, suggest that any sudden moves, at least, are unlikely. But the similarity in their emphasis on construct 1, the type of constructs they hold as important, and the generally close relationship between their different selves, show that there are commonalities which seem to have some relationship with hard work.

(Two additional case studies considering motivation and pay are presented in appendix 10.1).

B) Hard Work Discrepancy

This section looks at managers who consider themselves to be hard working, but who are not seen as hard working by the organisation.

Manager P (Sandvik)

Mr P. is an engineering manager concerned with customer supplies. He has a staff of 10. He is 45 and has been with the company for over 20 years.

Mr P. likes to feel he has succeeded. He does so when the company gets orders, and especially when orders are received as a result of his advice. He also gets great satisfaction from understanding all the technical aspects of the products.

He likes to 'develop' in the company. He feels he has always worked hard to achieve better positions. Promotion is important to him and he has had the urge to succeed since his father died when he was young and the family was left in poverty. He feels there are still opportunites within the company, although one has to work for them. He sees promotion in terms of giving him more responsibility overall.

Pay is important to him but he does not concern himself with pay unless he feels it is inadequate. He is satisfied with his pay at the moment. He feels that overall, pay and job satisfaction are of equal importance.

The external manager's comments were that Mr P. is a knowledgeable technician and specialist, but who is naive. He is not a good manager and his performance is below average. His rating for hard work is 4. His self rating is 2.

In turning to the repertory grid we find his constructs as follows;

1. Hard working - Not hard working

2. Forward thinking - Shortsighted
3. Conscientious - Not caring
4. Personality - Uninteresting
5. Ambitious - Unambitious
6. Fair minded - Selfish
7. Professionalism - Unprofessionalism
8. Communicates ideas - Difficult to understand
9. Positive attitude - Negative attitude
10. More thoughtful - Unthinking
11. Well organised - No planning
12. Strong character - Weak

His constructs overall would not seem to suggest any obvious reason why Mr P. should not be hard working. His emphasis is on mental constructs (forward thinking 2; communicates ideas 8; more thoughtful 10; well organised 11), but he has two positive work constructs (7, professionalism, and 9, positive attitude) in addition to hard work. Moreover, construct 1, hard working, is fourth highest on Component 1 (Figure 10.2) and constructs 7 and 9 are also included in the top five.

The construct/element distances, however, (Table 10.3b) reveal some interesting factors. While C1, hard working on E1, present self, is around the middle distance in relation to the other constructs, and on E10, ideal self, it is the second shortest construct, on E12, organisation self, construct 1 is very high at 131.7. This means that the manager feels he is not seen as hard working at all, which is correct. In fact, the distances of all his constructs on E12 would reveal that his organisation image is poor. Graphically (Diagram C3) his constructs can be seen to be dissimilar to his organisation self. But interestingly, if we look at his E1/E3 distance (Table 10.3a) we find that it is fairly long at .849 which indicates that the manager hardly identifies with the person responsible for his career. In this case it would not seem surprising then, that a manager who feels he is a different person in substantial ways to a significant organisational other, should feel he is not seen by him in a very good light.

Component Scores (Construct Loadings)*

Manager P (San.)

| Component 1 | |
|---|---|
| Construct | Score |
| 4 | -.474 |
| 6 | -.608 |
| 8 | -.702 |
| 12 | -.762 |
| 3 | -.773 |
| 5 | -.826 |
| 10 | -.850 |
| 7 | -.859 |
| 1 | -.894 |
| 2 | -.895 |
| 11 | -.926 |
| 12 | -.933 |

Manager K (San.)

| Component 1 | |
|---|---|
| Construct | Score |
| 6 | .972 |
| 11 | .924 |
| 3 | .905 |
| 5 | .896 |
| 8 | .890 |
| 4 | .824 |
| 9 | .765 |
| 2 | .735 |
| 10 | .731 |
| 12 | .726 |
| 1 | .724 |
| 7 | -.387 |

Figure 10.2

*(See page 235)

Manager P (Sandvik)

Distance between elements (Expressing relationships between elements)*

| | Scores | | |
|---|---|---|---|
| Element | E1 | E10 | E12 |
| 1 | -- | .520 | .587 |
| 2 | .507 | .304 | .784 |
| 3 | .849 | .976 | .769 |
| 4 | .574 | .797 | .590 |
| 5 | 1.850 | 2.160 | 1.438 |
| 6 | .521 | .511 | .750 |
| 7 | .843 | 1.139 | .538 |
| 8 | .779 | 1.099 | .637 |
| 9 | .674 | .995 | .639 |
| 10 | .520 | -- | .841 |
| 11 | .515 | .569 | .643 |
| 12 | .581 | .841 | -- |

Table 10.3a

Relations between constructs and self elements (Degrees)*

| | Scores | | |
|---|---|---|---|
| Construct | E1 | E10 | E12 |
| 1 | 58.2 | 33.3 | 131.7 |
| 2 | 63.3 | 38.3 | 107.6 |
| 3 | 46.3 | 42.7 | 112.1 |
| 4 | 76.7 | 55.4 | 100.1 |
| 5 | 52,6 | 50.0 | 121.3 |
| 6 | 53.9 | 39.6 | 98.7 |
| 7 | 59.2 | 34.4 | 93.6 |
| 8 | 38.4 | 35.7 | 117.6 |
| 9 | 48.4 | 38.0 | 109.5 |
| 10 | 45.0 | 38.6 | 94.7 |
| 11 | 54.9 | 33.0 | 95.2 |
| 12 | 57.9 | 55.8 | 104.1 |

Table 10.3b

*(See page 236)

Manager P. (Sandvik)

## DISTANCE BETWEEN ELEMENTS

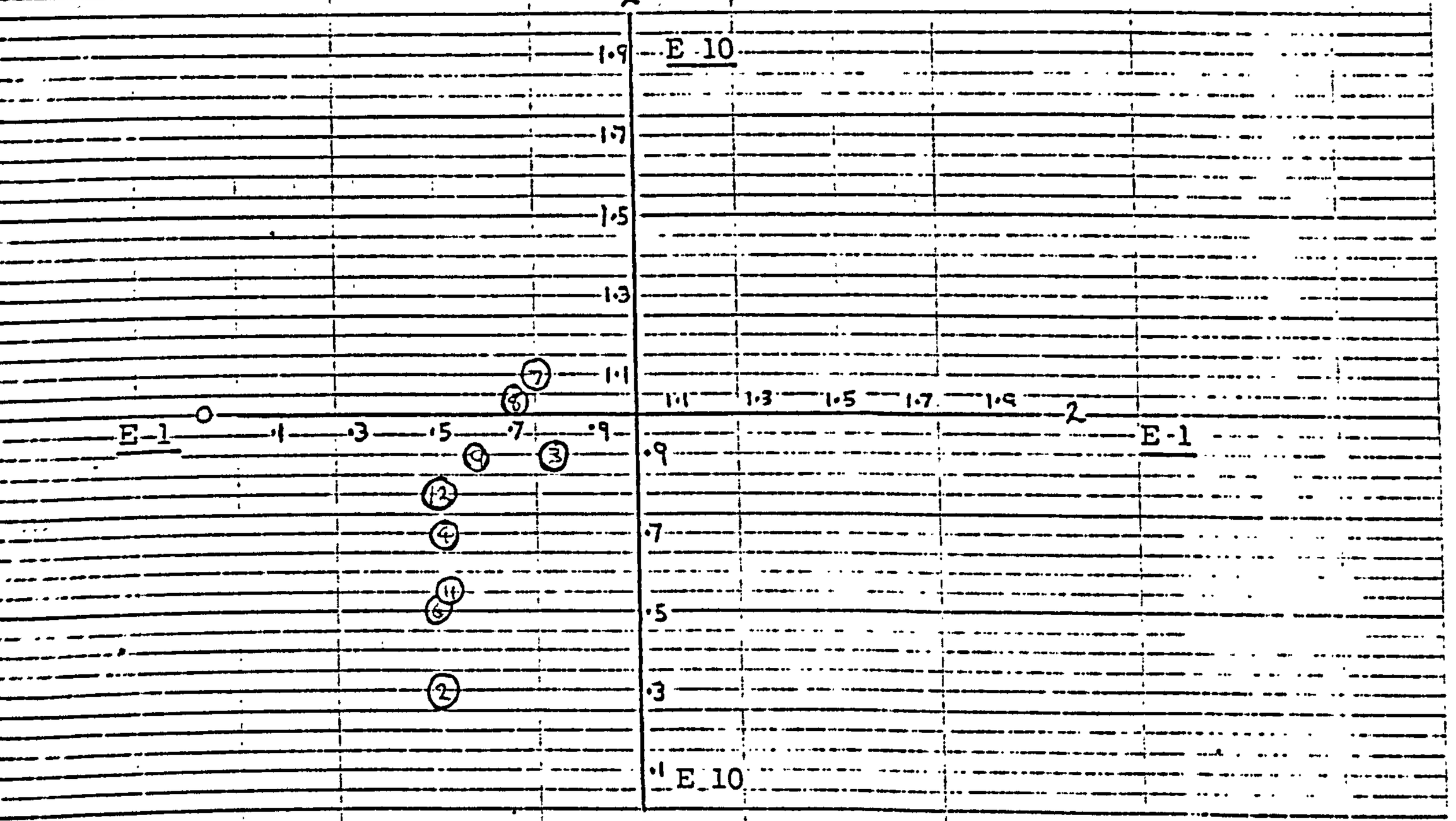



DIAGRAM C1

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

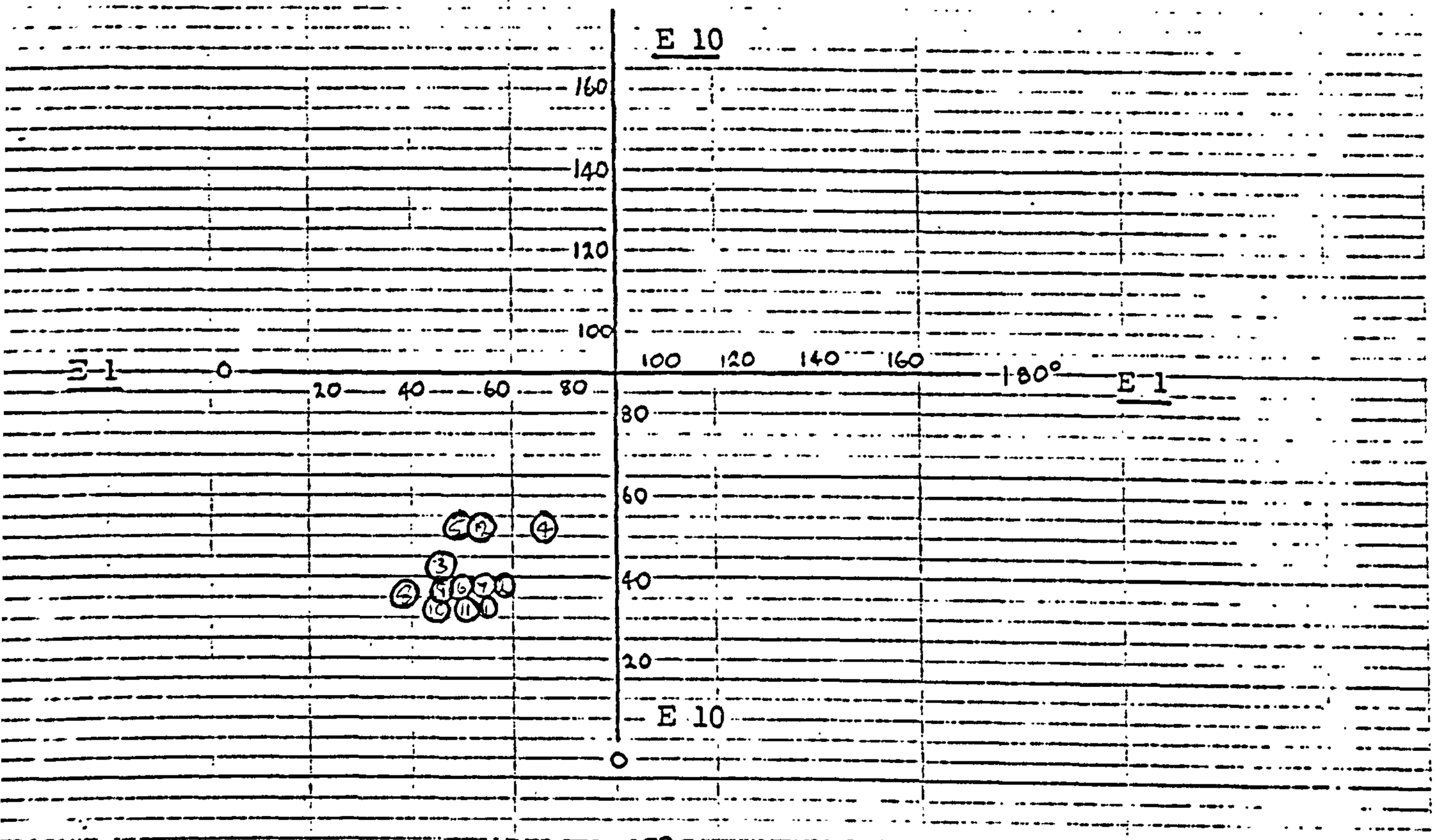



DIAGRAM C2

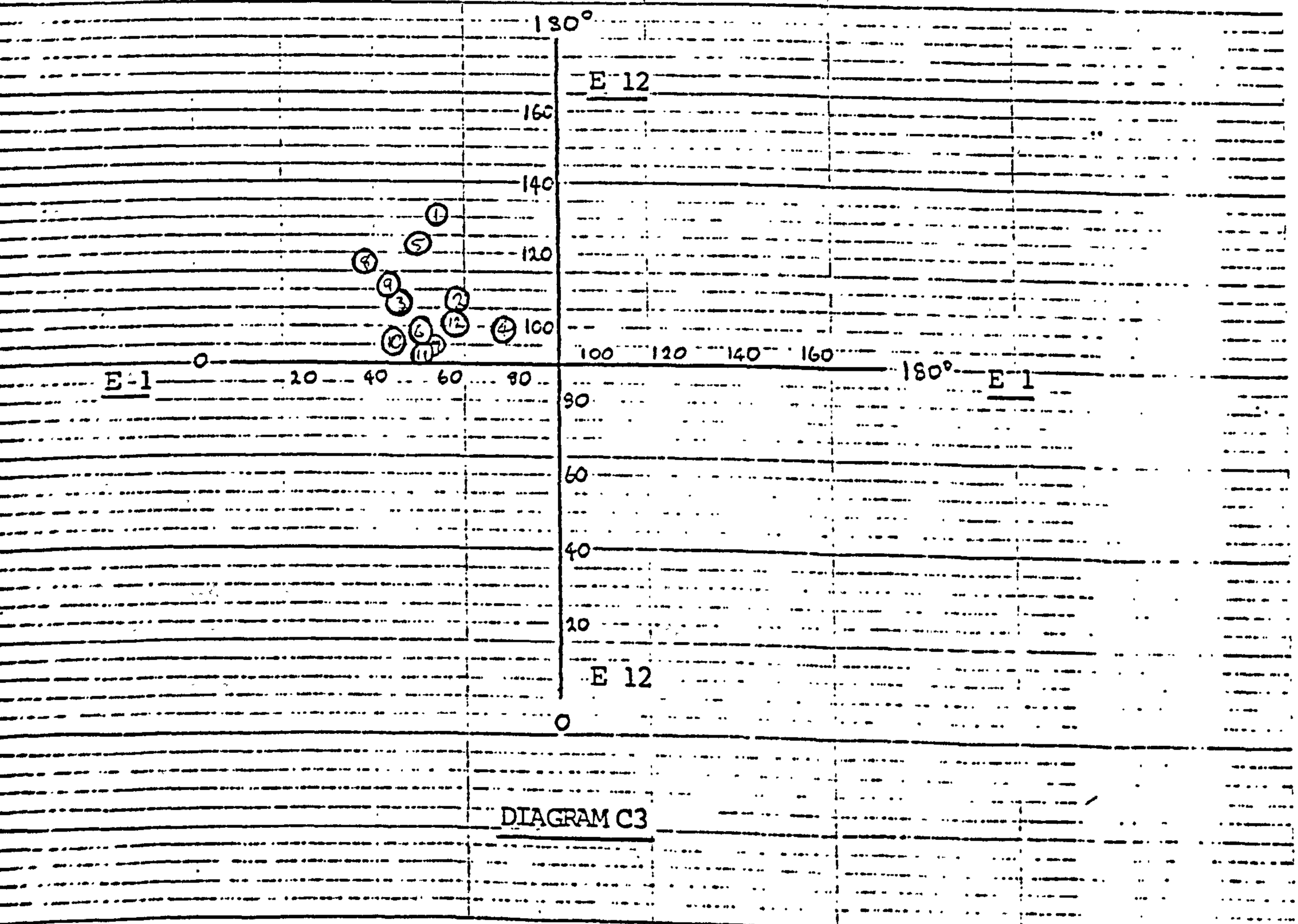



DIAGRAM C3

However, this would not seem to be a particularly healthy state of affairs. In the interview the manager noted that promotion was important to him which one might consider was reflected in construct C5 ambitious. But C5 is not particularly high on Component 1 and the distance on E12, organisation self, at 121.3 is the second longest. One might feel from this that unless an attempt was made to rehabilitate the manager's organisation self, or change his organisational behaviour, sooner or later the manager will turn off from work. The comment from the external manager that Mr P's performance was below average might suggest that he had already done so.

Manager K (Sandvik)

Mr. K is the support services manager for manufacturing, which involves a range of ad hoc support tasks. He is 40 and has been with the company for 7 years.

Mr. K enjoys problem solving and implementing solutions. He likes challenges, determining problems and motivating people. His present job is demanding in terms of time, but not mentally demanding. He likes variety, but would like to develop his analytical abilities which he is not really doing. He felt he would rather be doing his previous job.

He does not feel he is ambitious in terms of promotion, although he was disappointed recently when he failed to secure the manufacturing managers position which he was doing temporarily. He put his disappointment down to a feeling of not being recognised. He also saw pay as important because it provided a recognition of worth.

He did not feel that work was particularly a place to develop personally. He felt there were many other ways to develop oneself than coming to work. Despite his failure to get the job above him, Mr. K felt he was unlikely to leave the company and he is not looking around for another job.

The external managers assessment is that Mr. K is demoralised as a result of not being given the manufacturing managers position permanently. He is astute and highly intelligent, but his performance is only average and excursions into other functions, such as personnel, have not gone very well. He was rated at 4 for hard work, while his self rating was 2.

From the above there would seem to be a number of reasons why the external assessment of hard work is likely to be more accurate than Mr. K's. Mr. K has just been turned down for promotion, failing to get the recognition he wants; he would rather be doing his previous job than his present one, and he does not feel much personal development from work. To what extent does the repertory grid add to this.

Mr. K's constructs are,

1. Hard working - Not hard working
2. Ambition - Not ambitious
3. Meeting objectives - Not meeting objectives
4. Receptive - Not receptive
5. Problem solver - Lack of problem solving
6. Analytical - Not analytical
7. Company loyalty - No company loyalty
8. Courage with new ideas - No courage with new ideas
9. Managing people - Not managing people
10. Committed to own ideas - Not committed to own ideas
11. Intellectual ability - No intellectual ability
12. Sociable - Not sociable

Some of his constructs would seem to reflect the interview emphasis on mentally demanding work. Constructs 5,6 and 11, (problem solver, analytical, and intellectual ability), are from category A. His other emphasis is on work constructs of some sort (3 meeting objectives, 4 receptive, 7 company loyalty, and 10 committed to own ideas). Ambition is also included although he said in the interview he was not ambitious.

To some extent this latter point is reflected in the position of this construct (number 2) on Component 1 (Figure 10.2), which is 8th. Construct 1, hard working, moreover, is last but one. Even more interesting is that construct 7 company loyalty, is actually on the negative dimension of the component, which means he has none. His first two constructs are, C6 analytical, and C11 intellectual ability.

Thus, what this indicates is that, as the external assessor claimed, the manager may not be working hard because he is demoralised. From the position of construct 7 he would certainly seem to lack commitment. Moreover, he still places some emphasis on ambition and he may well have been affected by his lack of promotion. But what also must be important is the low position he gives to construct 1 and his emphasis on mental constructs, 6 and 11, aspects which are not contained in his present job. Not being able to fulfil two of his most important constructs in his job, but also not having hard work as a strong self image value, would seem to be a strong reason for him not working hard.

The importance of these last two constructs is reflected in the shortness of their distance on E10, ideal self, and E12, organisation self, (Table 10.4b). Also of importance is construct 5, (problem solver), which apart from construct 4, (receptive) has the shortest distance on E1, present self, at 26.9. It is noteworthy that ambition (construct 2) is not particularly salient to Mr. K on E1 or E10 (distances of 73.4 and 64.9), but he feels it is part of his organisation self (E12). Thus he may be demoralised as the external assessor believes, but it is probably not for the reasons he thinks.

His element distances indicate that his self views of the world are fairly similar and do not particularly add anything to the analysis.

Manager K (Sandvik)

Distance between elements (Expressing relationships between elements)*

| | Scores | | |
|---|---|---|---|
| Element | E1 | E10 | E12 |
| 1 | -- | .317 | .330 |
| 2 | .522 | .455 | .322 |
| 3 | .852 | .867 | .761 |
| 4 | .794 | .840 | .860 |
| 5 | 1.625 | 1.816 | 1.746 |
| 6 | .607 | .679 | .732 |
| 7 | 1.172 | 1.299 | 1.335 |
| 8 | .529 | .504 | .520 |
| 9 | 1.163 | 1.298 | 1.288 |
| 10 | .317 | -- | .333 |
| 11 | .226 | .438 | .448 |
| 12 | .330 | .333 | -- |

Table 10.4a

Relations between constructs and self elements (Degrees)*

| | Scores | | |
|---|---|---|---|
| Construct | E1 | E10 | E12 |
| 1 | 59.1 | 58.3 | 51.4 |
| 2 | 73.4 | 64.9 | 45.0 |
| 3 | 48.3 | 36.5 | 42.1 |
| 4 | 23.8 | 29.7 | 32.0 |
| 5 | 26.9 | 31.0 | 27.8 |
| 6 | 42.3 | 31.2 | 32.0 |
| 7 | 127.2 | 120.1 | 123.7 |
| 8 | 48.5 | 27.9 | 28.2 |
| 9 | 48.6 | 30.9 | 53.2 |
| 10 | 72.3 | 56.7 | 49.5 |
| 11 | 39.7 | 37.0 | 31.0 |
| 12 | 72.5 | 49.5 | 63.9 |

Table 10.4b

*(See page 236)

~~Manager K (Sandvik)~~

## DISTANCE BETWEEN ELEMENTS

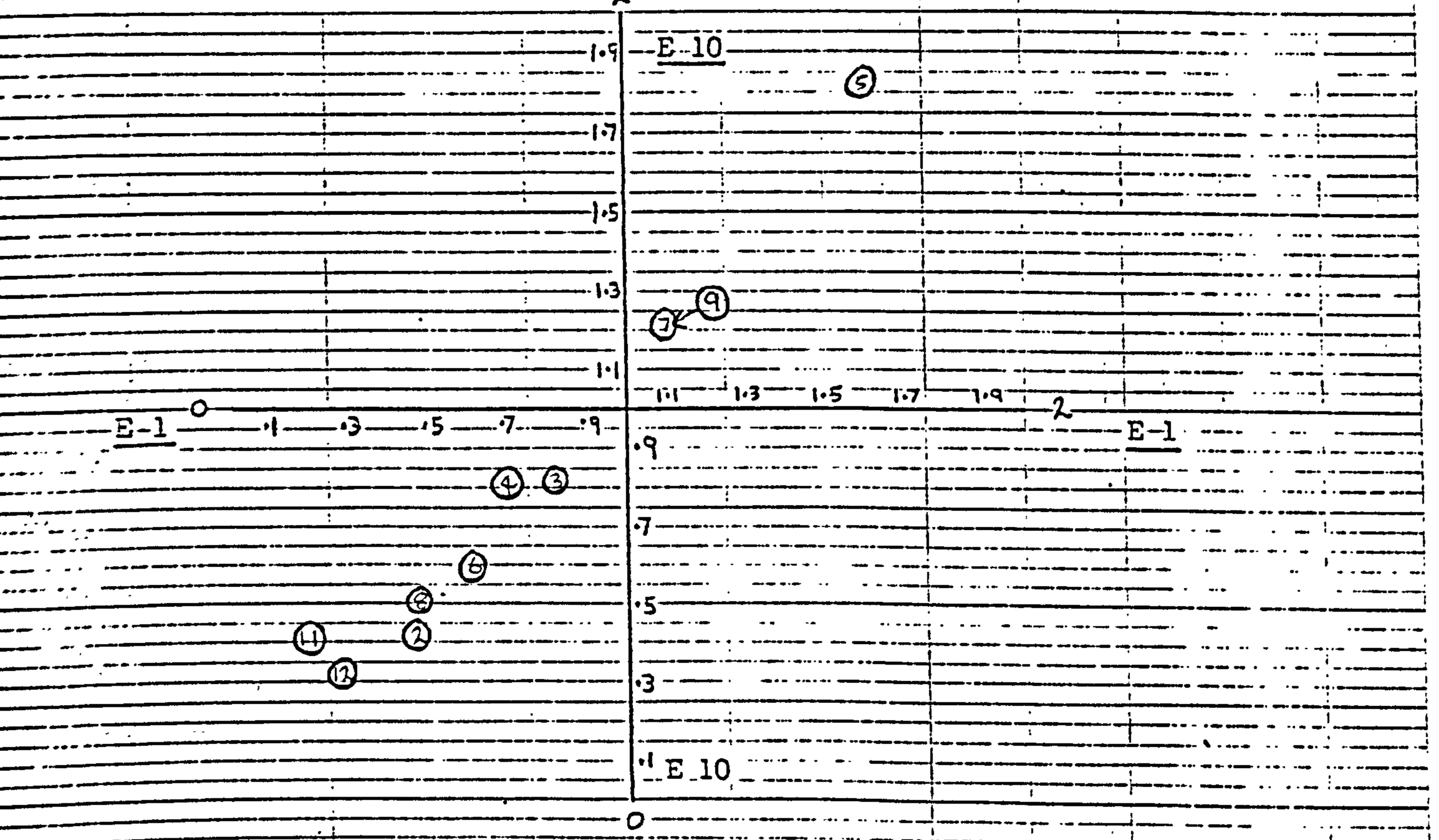



DIAGRAM D1

Manager K (Sandvik)

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

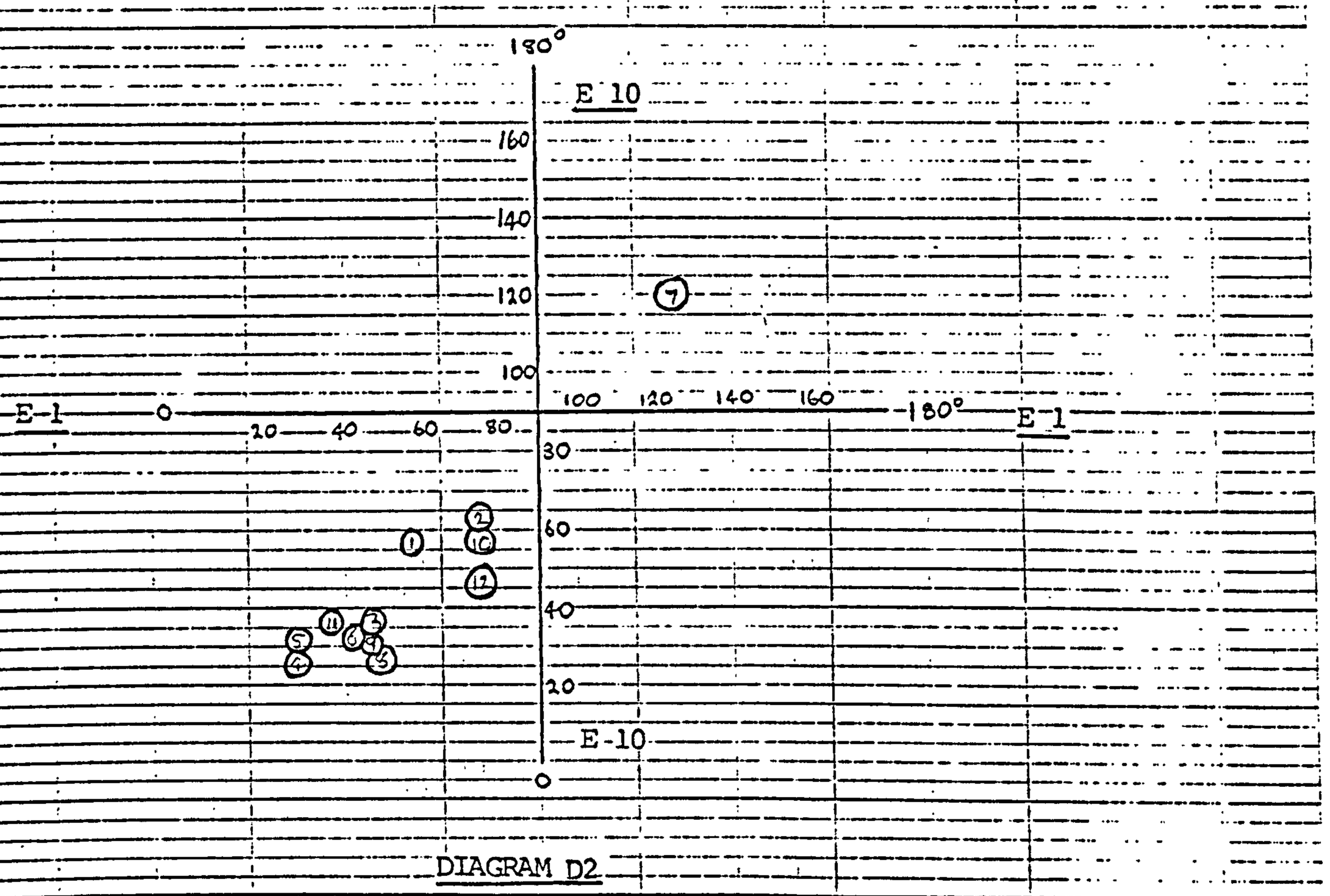



DIAGRAM D2

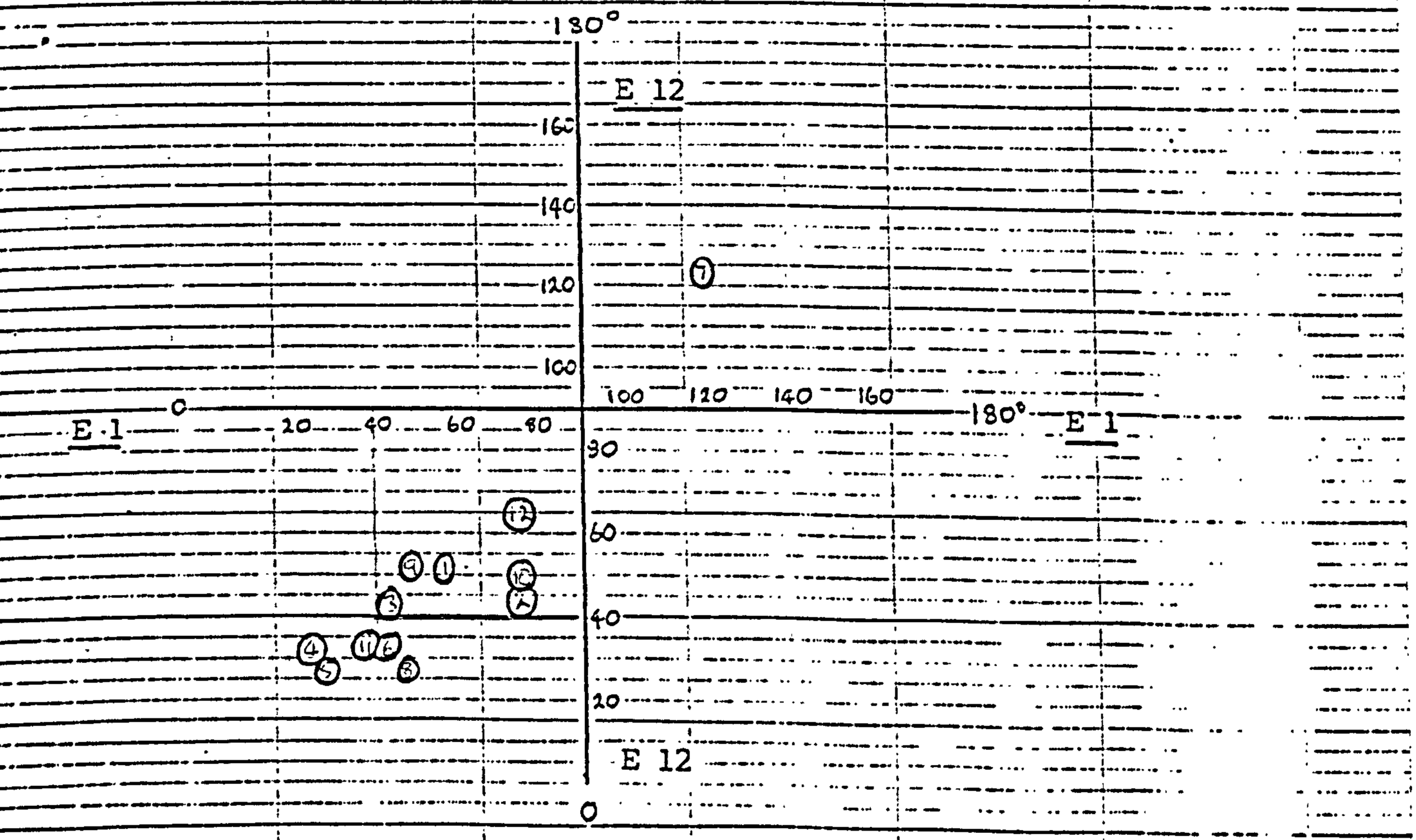



DIAGRAM D3

## Conclusion

While the interview material provided a number of insights into the managers' make up, the repertory grid confirmed, and added to this data. Neverthless, the prime importance of the above is not in relation to research methodology problems, but in the practical implications that such insights might have, and not only for motivating managers in the interests of the organisation, but also for helping managers personally. For Mr. P it would seem that something needs to be done about how he sees his boss's boss and why he fails to identify with him, especially if he retains any thoughts about going higher in the organisation. Mr. K might possibly be in the wrong job, but would certainly not seem to be getting much fulfilment from his present one.

In the two additional case studies in the appendices, Mr. A, (appendix 10.2b), felt he was 'content' at having failed to get promotion, in the sense that the pressure to strive upwards was no longer there. But the analysis shows that one of the reasons that he may not have been promoted may be due to his understanding of what an effective manager is, which may conflict with organisational norms. Mr. C (appendix 10.2a) felt he had 'natural cunning', but he did not seem to be fooling many people into believing he was a hard working manager, possibly only himself. At 58 it may not make much difference to him, but the analysis shows that a younger man would probably benefit from some direct advice.

C) Low Hard Work Ratings

This section considers managers who are both externally rated relatively low for hard work, and also rate themselves low.

Manager W (Sandvik)

Mr W. is National Accounts Manager and is responsible for maintaining the trading accounts with the big firms that the company deals with. He is 39 and has been with the company for 6 years.

The job is basically concerned with selling. The job appeals to Mr. W. It satisfies his extrovert ways. It gives him the freedom to create new things and implement ideas within broad parameters. He enjoys the job in that every day is different. He likes to get to know his customers and get involved with them personally.

He has a number of frustrations. The target system does not reflect the work he does. He also rarely sees any end result to his work, and he finds it more motivating to do deals which are more immediate. Nevertheless, he feels very enthusiastic generally and likes the job, people and the company.

Pay is important, but not overriding and he is satisfied with his pay. Promotion is also important, but he does not see himself as a climber and would not want to get to the top at the expense of others. He feels that job satisfaction is most important and his motivation comes from within. He feels he is always learning and that life is partly the development of new skills.

Mr. W feels what he terms 'positional insecurity'. He felt it was possible to be overpromoted, but he also felt that someone in this situation would be moved to a lesser job, rather than be got rid of. He would not completely admit to being overpromoted himself, but he did not see himself getting any higher in the organisation.

The external manager's assessment of Mr. W was that he was an average performer. He was given a hard work rating of 4, and he rated himself at 3. Mr. W had a 'twisted private life' and was seen as 'untruthful'. The assessor felt that there was a slim line between the conman and the salesman, and it was difficult to tell with this manager which was coming through.

The repertory grid helps throw some light on why Mr. W is neither externally or internally viewed as a hard worker, and also on his possible lack of truthfulness. His constructs are as follows.

1. Hard working - Not hard working
2. Successful - Not successful
3. Extrovert - Introvert
4. Loyalty - Disloyalty
5. Determination - Acceptance
6. Cooperation - Uncooperation
7. Education (on life) - Contempt
8. Sense of humour - Lack of (sic)
9. Security - Insecure
10. Achievement - Dissatisfaction
11. Administration - Lax administration
12. Understanding - No understanding

The emphasis is on personality, people and personal development constructs. On Component 1 (Figure 10.3), which accounts for 85% of the variance, construct 1, (hard working), is last. Manager W puts C12 understanding, first, followed by, C4 loyalty, C6 cooperation, C9 security, and C7 education on life. He has what might be called a passive work approach.

If we turn to his construct/element distances (Table 10.5b), we find that on E1 (present self), C1 hard work (77.8), C2 successful (79.2), and C10 achievement (73.8), have the largest distances. Yet his E10 distances for those three constructs are quite small which would seem to indicate that ideally he would like to be much more successful, hard working and achieving. In fact, all of his E10 distances are

Component Scores (Construct Loadings)*

Manager W (San.)

| Component 1 | |
|---|---|
| Construct | Score |
| 1 | -.748 |
| 8 | -.843 |
| 2 | -.879 |
| 11 | -.930 |
| 3 | -.934 |
| 5 | -.942 |
| 10 | -.946 |
| 7 | -.951 |
| 9 | -.958 |
| 6 | -.966 |
| 4 | -.971 |
| 12 | -.975 |

Manager AD (Sandvik)

| Component 1 | | Component 2 | |
|---|---|---|---|
| Construct | Score | Construct | Score |
| 1 | -.379 | 10 | .729 |
| 12 | -.420 | 3 | .560 |
| 10 | -.459 | 8 | .391 |
| 6 | -.491 | 7 | .326 |
| 9 | -.532 | 9 | .195 |
| 5 | -.623 | 5 | .051 |
| 3 | -.654 | 2 | -.061 |
| 11 | -.655 | 4 | -.120 |
| 8 | -.661 | 12 | -.465 |
| 7 | -.818 | 1 | -.650 |
| 4 | -.911 | 11 | -.657 |
| 2 | -.926 | 6 | -.659 |

Figure 10.3

*(See page 235)

Manager W (Sandvik)

Distance between elements (Expressing relationships between elements)*

| | Scores | | |
|---|---|---|---|
| Element | E1 | E10 | E12 |
| 1 | -- | .663 | .504 |
| 2 | .560 | .483 | .632 |
| 3 | .722 | .253 | .866 |
| 4 | .451 | .697 | .446 |
| 5 | 1.470 | 1.917 | 1.141 |
| 6 | .442 | .408 | .660 |
| 7 | 1.522 | 1.933 | 1.239 |
| 8 | .413 | .638 | .467 |
| 9 | .806 | 1.231 | .574 |
| 10 | .663 | -- | .906 |
| 11 | .541 | .555 | .680 |
| 12 | .504 | .906 | -- |

Table 10.5a

Relations between constructs and self elements (Degrees)*

| | Scores | | |
|---|---|---|---|
| Construct | E1 | E10 | E12 |
| 1 | 77.8 | 27.4 | 125.3 |
| 2 | 79.2 | 28.5 | 95.7 |
| 3 | 54.6 | 35.9 | 93.7 |
| 4 | 49.3 | 24.7 | 102.2 |
| 5 | 59.7 | 22.5 | 118.1 |
| 6 | 56.7 | 26.5 | 103.7 |
| 7 | 48.7 | 31.0 | 96.4 |
| 8 | 44.4 | 38.2 | 93.4 |
| 9 | 69.7 | 23.8 | 116.8 |
| 10 | 73.8 | 22.1 | 114.1 |
| 11 | 65.5 | 31.3 | 112.0 |
| 12 | 54.3 | 23.6 | 103.2 |

Table 10.5b

*(See page 236)

Manager W (Sandvik)

## DISTANCE BETWEEN ELEMENTS

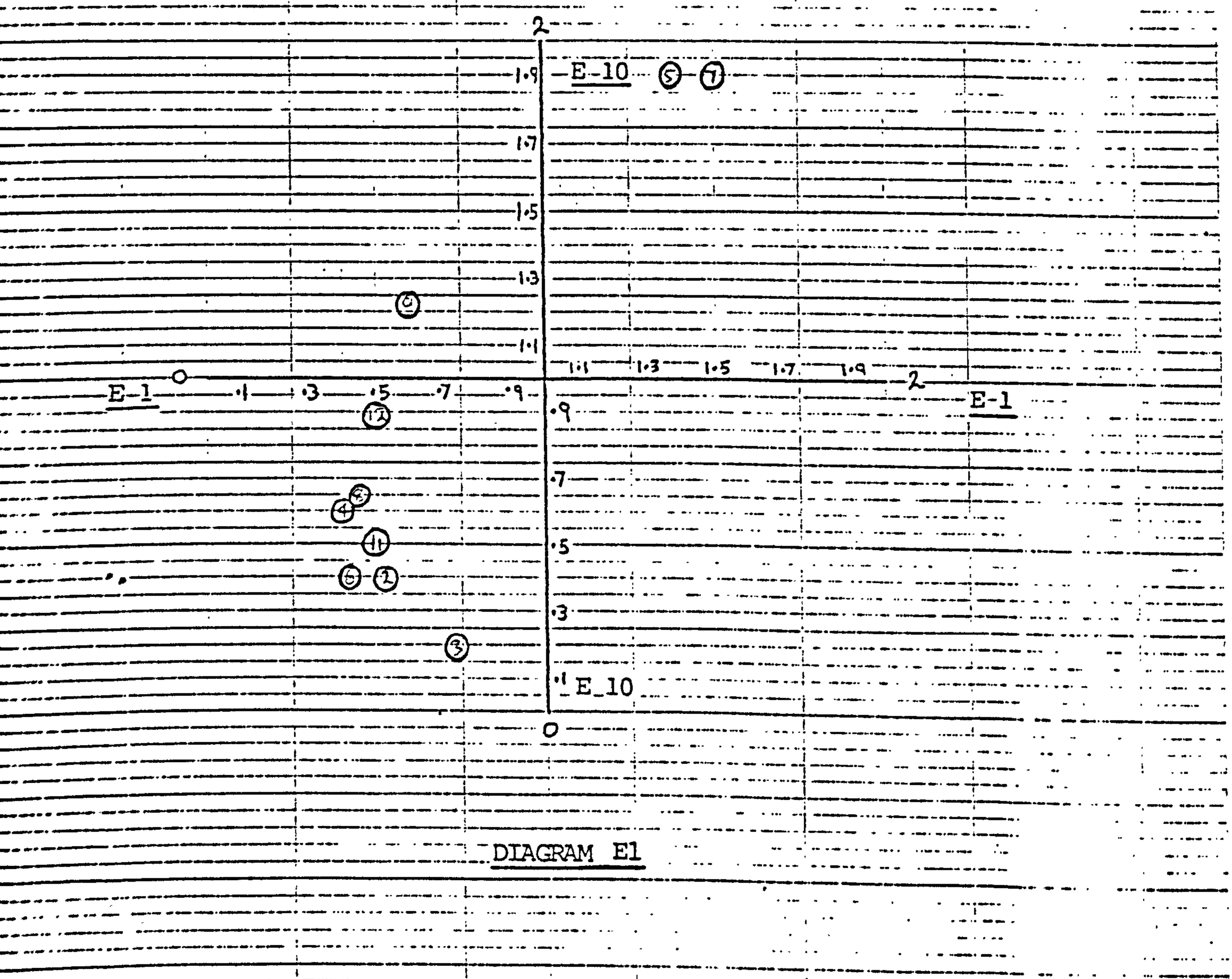



DIAGRAM E1

Manager W (Sandvik)

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

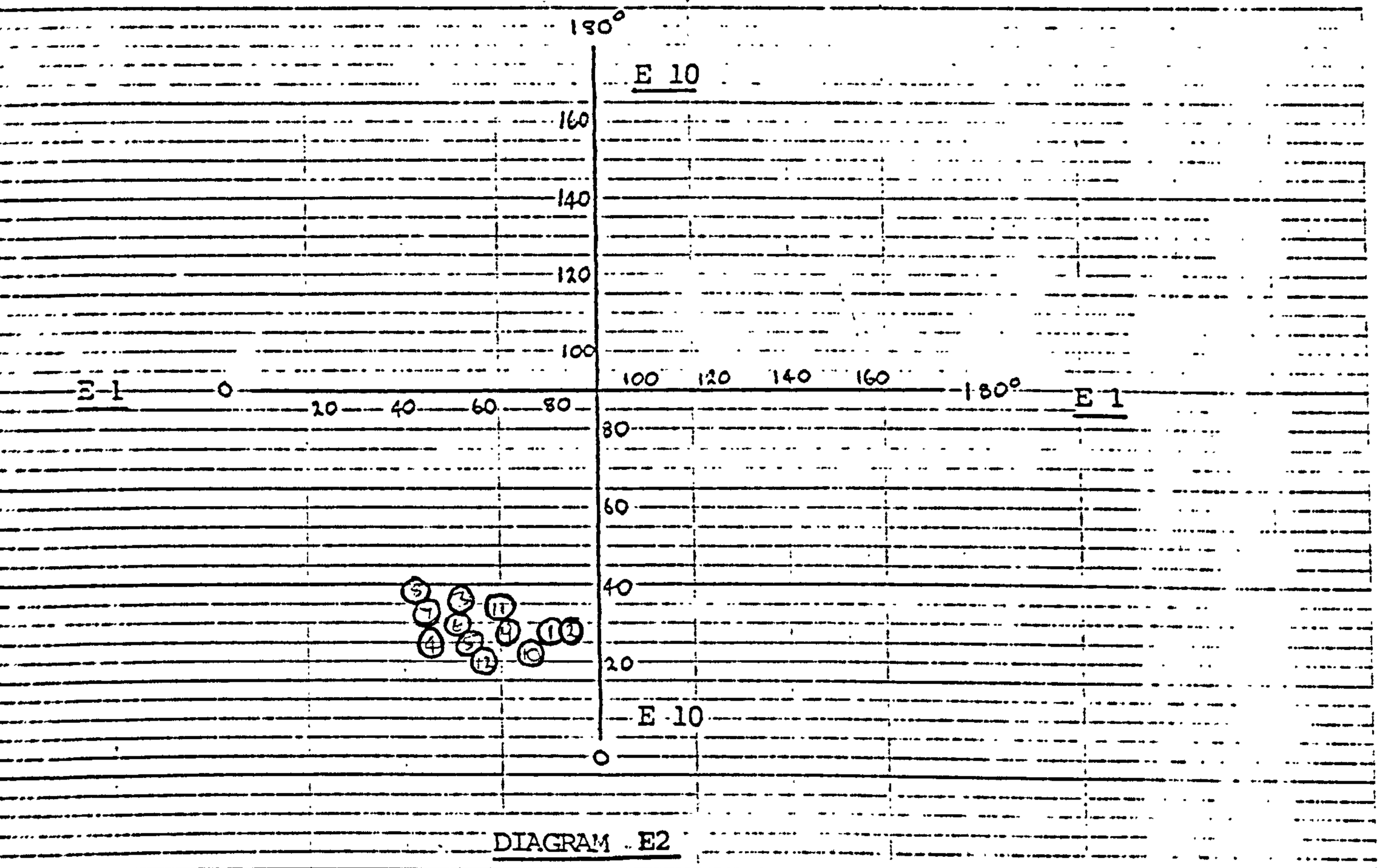



DIAGRAM E2

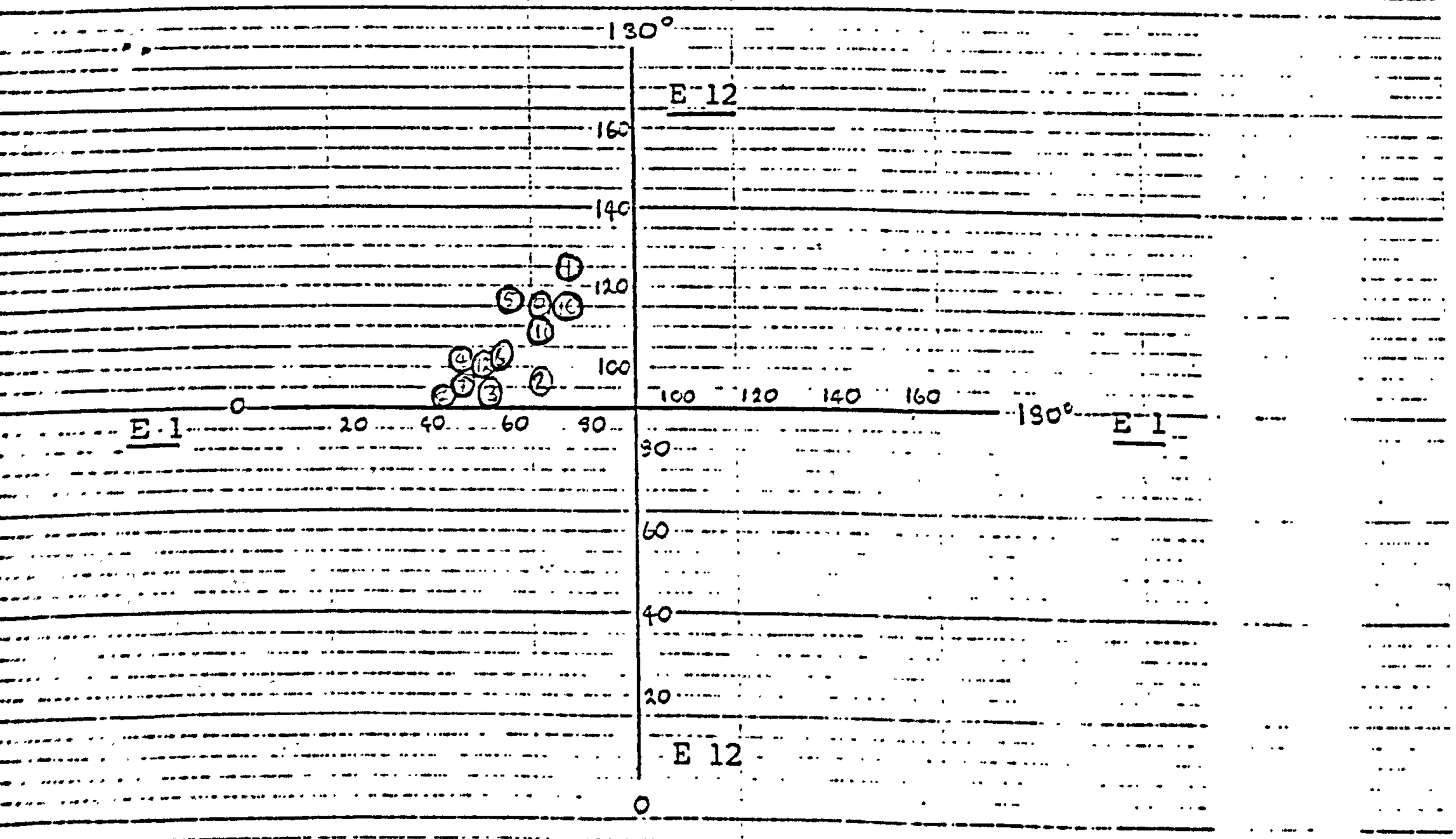



DIAGRAM E3

lower than his E1 distances which indicates some difference in his present and ideal selves.

It is noteworthy that for hard work the manager gives himself a mark of 3 on his grid, for achievement, a mark of 4, and for successful, a mark of 5. These are relatively low scores as the distances above already imply. It would seem unlikely that someone who was generally being untruthful would admit that in effect he was a failure.

The distance for E1/E10 in Table 10.5a at .663 would confirm the comment above that there is some difference in his present and ideal views of himself. But if we return to Table 10.5b we see that the construct distances on E12 are some way away from those on E1 and E10, which is represented for E1/E12 in Diagram E3. Thus, the manager not only feels that he is not seen as hard working, but also seen as not successful, and a non-achiever. The low position he gives to C1, (hard working), in his construct system is one reason why he is not hard working. But the large E1/E12 discrepancy must also have something to do with it. It would seem that basically he feels he may not be living up to his job. He would seem, in fact, to feel he is seen as overpromoted, and secure (construct 9) is one of the least things he feels. (On E1/E9, Table 10.5b, the distance is 69.7).

Manager AD (Sandvik)

Manager AD is Sales Manager for saws and tools for the north of the country. He has a sales team of 6. He is 36 and has been with the company for 3 years.

Mr AD moved into the sales department after working in the publicity function which closed. It was a lateral move, but he does not feel his present job is as important as his last. The change to sales was quite considerable as he had no previous selling experience. He feels the job has taught him a lot, but he still has a lot to learn.

He welcomed the change to a different function as he wanted to gain broader business experience. However, he had wanted to go into marketing, but was told that 6 months sales experience would do him good. He expects to be a sales manager for some years, but this does not worry him unduly.

He feels he is motivated by a number of things. He is ambitious, although promotion is perhaps less important than it was. He is more concerned now to gain knowledge, partly for its own sake, and partly to make him a better businessman and more attractive package. Pay is also important to him, but he is satisfied with it at the moment.

The external assessor's feeling about Mr. AD was that he was a good regional sales manager who did not work outstandingly hard (rating of 4). He worked harder when he was in publicity, but he felt Mr. AD went to sales and marketing for a quiet life and because of the attractions of expense accounts and company cars. Mr. AD's self rating is 4.

Mr. AD's reasons for not working particularly hard at the moment are not very obvious from the interview, although there are clues there. He would rather be in marketing than sales. He is concerned about promotion, but opportunities seem much less, although he seems to have accepted this rather than be frustrated by it. His repertory grid on the other hand gives a number of important insights. His constructs are as follows,

1. Hard working - Not hard working
2. Sees priorities - Does not see priorities
3. Honest - Dishonest
4. Intelligent - Unintelligent
5. Go ahead - Stuck in his ways
6. Politically adept - Politically inept
7. Economic in effort - Wasteful in effort
8. Ambitious - Unambitious
9. Real confidence - Self confidence
10. Liked - Disliked

11. Cunning - Naive
12. Enthusiastic - Unenthusiastic

The interesting thing about this manager's constructs is his inclusion of C7 economic in effort, which would seem to be somewhat contradictory to C1 (hard working). Also interesting is the inclusion of C6 politically adept, and C11 cunning, and that he can include this latter construct along with C3 honest.

At first glance, one might not think that he sees these two as contradictory. On Component 1 (Figure 10.3) their score is almost identical. What would seem to be different are C7 economic in effort, which is third on Component 1, and C1, (hard working), which is last. However, Component 1 accounts for only 42% of the variance. Component 2 (22% of the variance) shows that in fact C11 and C3 are very different. C11 being associated with C6 politically adept, and C3 associated with C10 liked. C1 is again some distance from C7 on this component.

If we turn to his element/construct distances, (Table 10.6b), the thing that stands out is not the particular distance of any one, but the greatness of all of them. There would seem to be self discrepancies, both between E1, (present self), and E10, (ideal self), and E1, (present self), and E12 (organisation self), and Diagrams F2 and F3 illustrate this. E1/E12 is particularly distant. Table 10.6a might suggest reasons for this. The E10/E2 and E10/E3 distances (1.333 and 1.178) show that he does not ideally identify with his bosses. In fact, he is dissimilar to them. Moreover, neither does he identify presently with them very much, (E1/E2 .822 & E1/E3 .817). Additionally, element 8, person likely to get on, at .869, is fairly close to E9, person not likely to get on (.951). Thus, there would seem to be some indicators here as to why Mr. AD sees himself in sales for the next few years, and why promotion is 'less important'.

Manager AD (Sandvik)

Distance between elements (Expressing relationships between elements)*

| | Scores | | |
|---|---|---|---|
| Element | E1 | E10 | E12 |
| 1 | -- | .841 | .330 |
| 2 | .822 | 1.333 | .942 |
| 3 | .817 | 1.178 | .853 |
| 4 | .589 | .853 | .582 |
| 5 | 1.273 | 1.933 | 1.102 |
| 6 | .614 | .737 | .700 |
| 7 | .735 | 1.190 | .708 |
| 8 | .869 | .802 | .839 |
| 9 | .951 | 1.329 | .809 |
| 10 | .841 | -- | .963 |
| 11 | .352 | .900 | .306 |
| 12 | .330 | .963 | -- |

Table 10.6a

Relations between constructs and self elements (Degrees)*

| | Scores | | |
|---|---|---|---|
| Construct | E1 | E10 | E12 |
| 1 | 72.2 | 69.5 | 95.2 |
| 2 | 74.0 | 36.6 | 104.3 |
| 3 | 76.6 | 43.1 | 76.4 |
| 4 | 80.1 | 36.2 | 99.3 |
| 5 | 54.2 | 59.5 | 83.4 |
| 6 | 104.5 | 74.2 | 133.7 |
| 7 | 90.9 | 37.4 | 105.7 |
| 8 | 60.7 | 46.9 | 69.7 |
| 9 | 103.8 | 47.4 | 121.1 |
| 10 | 94.8 | 51.9 | 85.4 |
| 11 | 86.9 | 63.7 | 128.6 |
| 12 | 52.3 | 66.9 | 87.4 |

Table 10.6b

*(See page 236)

Manager AD (Sandvik)

DISTANCE BETWEEN ELEMENTS

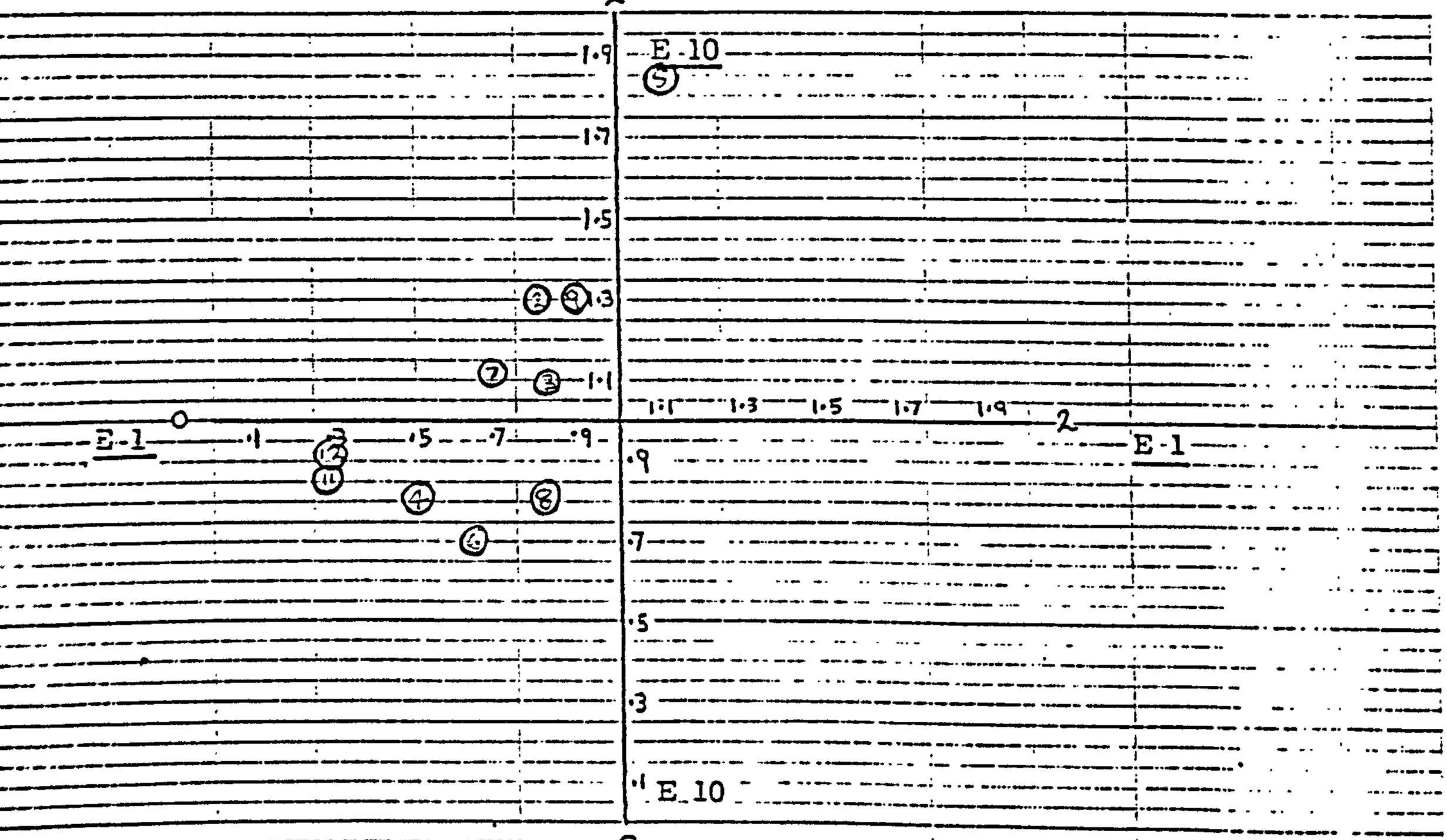



DIAGRAM F1

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

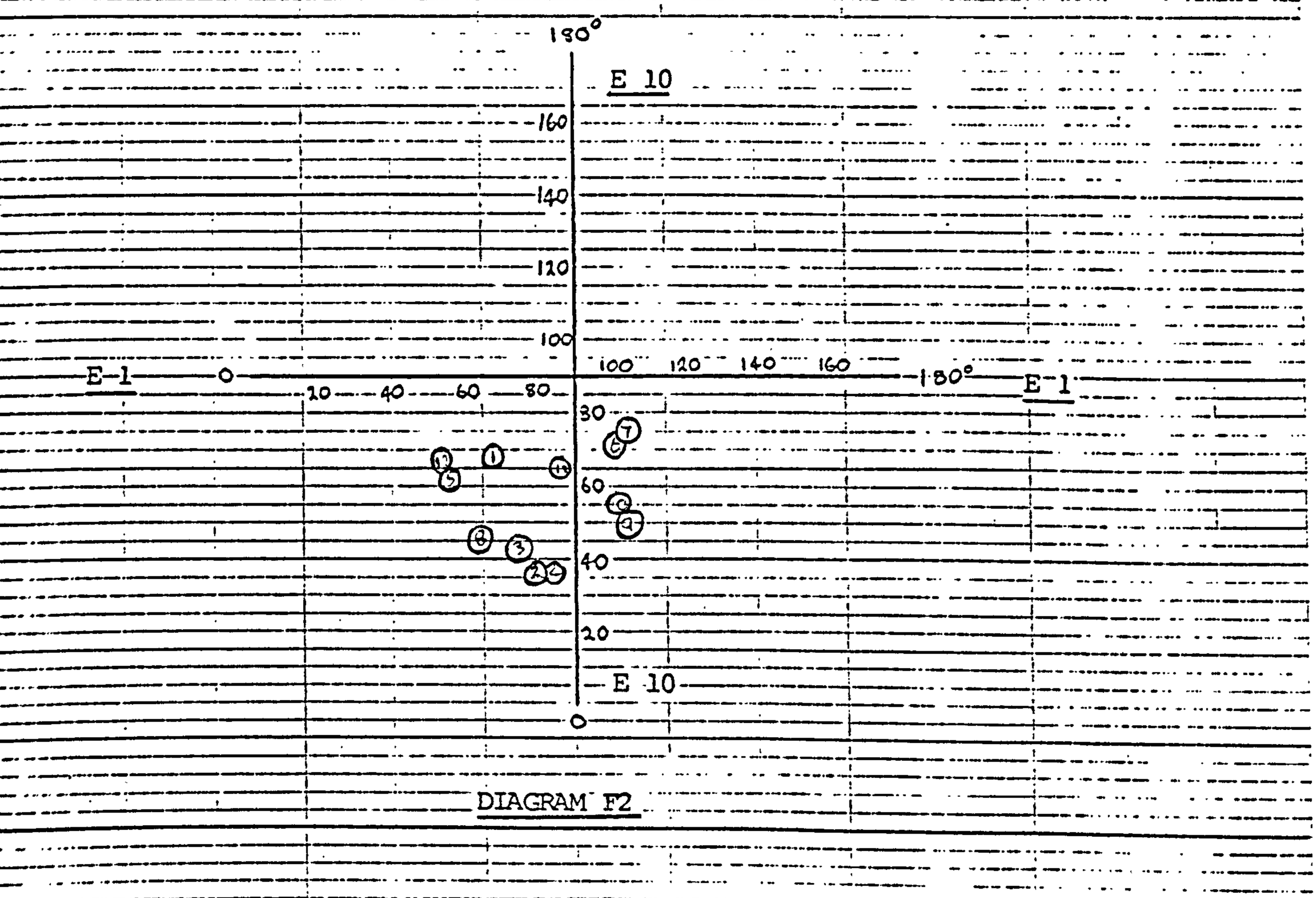



DIAGRAM F2

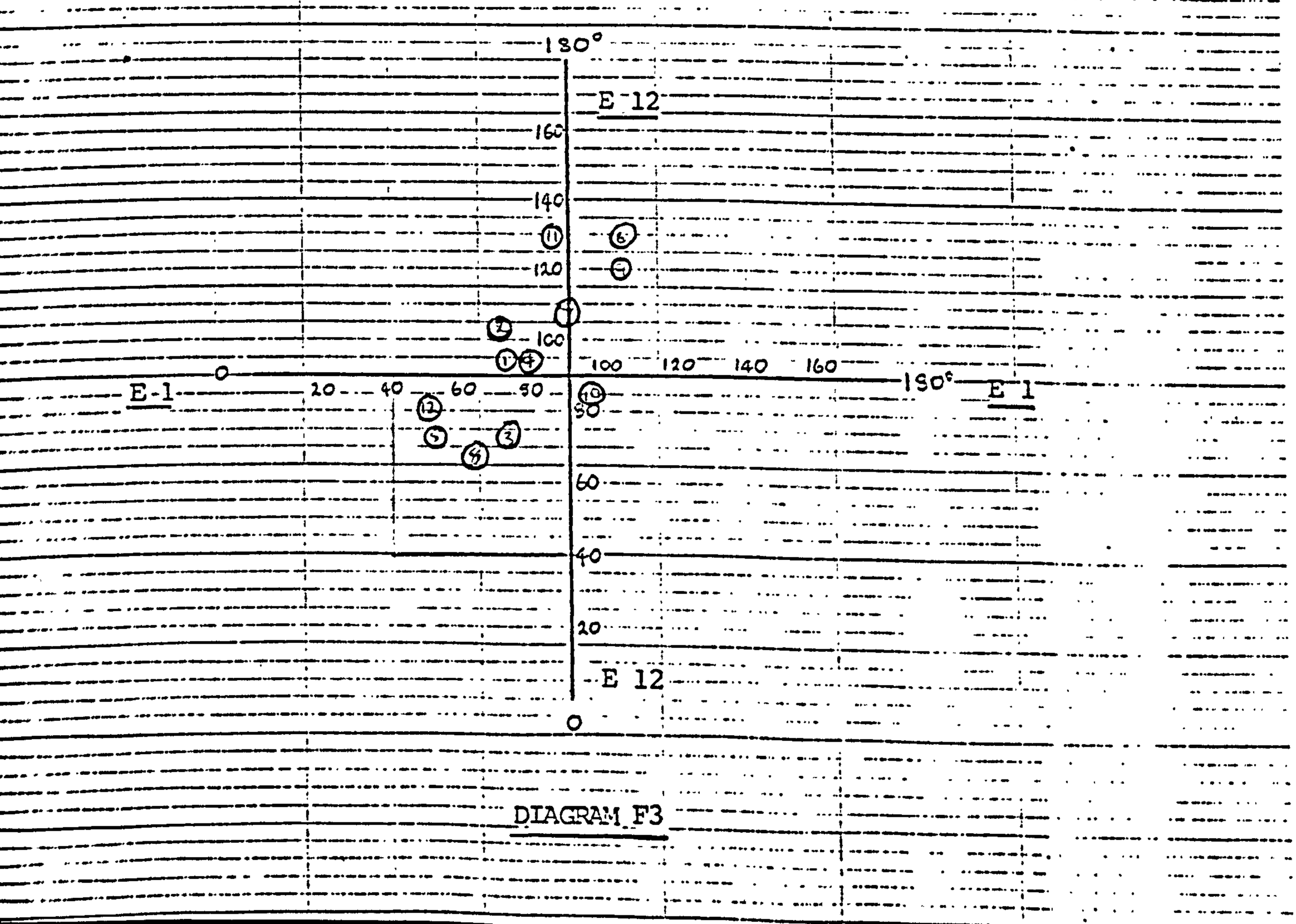



DIAGRAM F3

## Conclusion

Again, perhaps the possibility of practical benefits to the manager and the organisation are the most important aspects to come out of these studies.

The last two managers above would seem to have real problems. Neither seem to be suited to the jobs they are doing. Mr. W is a salesman who feels he is an extrovert, but his constructs are hardly proactive. Mr. AD might also seem to be in the wrong job. But perhaps the most interesting thing about these two managers is the large discrepancy between the way they see themselves and the way they think they are seen. Neither feel they are seen as acting in accordance with constructs that are important to them. As noted before, such a discrepancy, quite possibly, may have some relationship with the managers low hard work rating, and is also probably causing at least some internal conflict. Moreover, such discrepancies would not seem incapable of being solved. Counselling the manager about the discrepancy, the development of better relations with his boss, the development of skills that will enable him to project himself, or communicate his self identity better, would seem to be some practical solutions to the problem.

An additional study of Mr S (Sandvik) is shown in appendix 10.3. He seems to be a 'lost cause' although the interview material there indicates that he would probably benefit from being moved to a job he felt he would be more suited to, and the organisation might benefit if his boss pushed him a little harder.

D) Organisation Self Abnormality

The last two case studies in the previous section suggested that the discrepancy between how the manager thinks he is seen by the organisation and how he feels he is seen, may be the cause of low effort, and some frustration, and possible frustration and difficulties in the future. This has prompted the fourth category of case study which is concerned with managers who display some difference between E1 and E12.

Manager X (Sandvik)

Manager X is the Commercial Manager for saws and tools division which is an administrative post concerned with organising the sales team. He is 46 and has been with the company since 1981.

The position is a more general one than a 'normal' commercial manager's position. He also has responsibility for stock control, warehousing and some union negotiations, on a small site away from the main building. He enjoys administration and having broad responsibility, and likes getting involved with things. He no longer has any overt budgets and targets to work to. He feels he is a 'people's' man. He enjoys their contact and is motivated by them. He tries to enjoy the job as much as he can. He feels motivation comes from within. He likes to get people interested and involve them. He likes a happy, enthusiastic atmosphere.

Pay is important to him and it is particularly pronounced because he has a bridging loan. But money is not the wherewithall, and work is something he wants to do. He is happy with his pay. Promotion is no longer important to him because he realises he will probably not get higher. He would like to progress and is still ambitious, but he feels he is realistic. The main factor against him, he feels, is his age.

He feels that in terms of effort he does a good job, although he was not sure he always employed his time effectively. He feels he is enthusiastic and adaptable, but he feels the company is determined to get rid of old attitudes. Despite his adaptability he feels that this could eventually force him out of the company. He put this down to the fact that he was one of the oldest managers around and his age was against him.

The external manager's comments were that Mr. X was a good all rounder who lacks the finesse of better managers. He is a bit crude in his approach. His performance was only average and his rating for hard work was given as 3. The manager's self rating is 2.

The repertory grid reveals that it is not just this manager's age alone which makes him feel that he might be eased out. His constructs are as follows,

1. Hard working - Not hard working
2. Industrious - Idle
3. Efficient - Inefficient
4. Ambitious - Content
5. Clear thinking - Woolly
6. Honest - Devious
7. Capability - Not as good as he believes
8. Dedication - Uncommitted
9. Intelligent - Slow
10. Realistic - Unrealistic
11. Humane - Ruthless
12. Ability - Inability
13. Decisive - Hesitant

It is interesting that despite his feeling that he was a 'people person', his self constructs are not particularly concerned with how he relates to people. Two constructs might come under this heading, C6 honest, and C11 humane, but the majority are either work constructs (constructs; 2 industrious, 3 efficient, 8 dedication, 13 decisive) or ability constructs (5 clear thinking, 7 capability, 9 intelligent, 12

ability). In fact, on Component 1 (Figure 10.4), which accounts for 82% of the variance, construct 11, humane, is on the completely opposite dimension to the rest of the manager's constructs, while C6, honest, is last of the rest. Construct 1, hard working, is 9th.

If we turn to his construct/element relations (Table 10.7b), the notable thing is the much greater distance of the constructs on E12, (organisation self), than those on E1, (present self), and E10, (ideal self). Diagram G3 displays these graphically and shows that constructs 1,2,4,8,9,10 and 12, are all on the negative side of E12. This means, of course, that the manager thinks he is seen to be on the 'less attractive' side of these constructs and he is, not hard working, idle, content, uncommitted, slow, unrealistic and unable. Only one of these constructs (C4 ambitious) is highish on the present self (73.1). The rest, while not being very short, are not relatively high, and the distance of these constructs on E12 is approximately twice that of the constructs on E1. If Mr. X feels he is perceived this way by the organisation, then clearly he would feel that his position is threatened.

It is interesting that the manager's lower E10 construct distances on Table 10.7b, suggest that the manager is prepared to change. One might speculate that the thing that might make it difficult to do this effectively is the fact that he does not identify very well with his boss's boss (Table 10.7a, E1/E3, .739), who is responsible for Mr X's career in the organisation. But the E1/E10 distance at .708 suggests he has low self esteem, and that he may feel himself somewhat personally inadequate. While he might want to improve, it would seem unlikely that he could easily close such a wide gap between his self elements, without some major upheaval or motivator. It would seem that the possibility of being eased out of the organisation is not a strong enough spur for him to change. He is aware that his 'attitudes' are different, but he seems to be using 'age' as a fog, or excuse, for his organisational incompatability.

Component Scores (Construct Loadings)*

| Manager X (San.) | |
|---|---|
| Component 1 | |
| Construct | Score |
| 11 | .728 |
| 6 | -.743 |
| 4 | -.836 |
| 5 | -.874 |
| 1 | -.909 |
| 3 | -.919 |
| 2 | -.932 |
| 7 | -.942 |
| 13 | -.952 |
| 9 | -.959 |
| 8 | -.967 |
| 10 | -.978 |
| 12 | -.987 |

| Manager R (San.) | |
|---|---|
| Component 1 | |
| Construct | Score |
| 11 | .725 |
| 7 | .473 |
| 4 | -.040 |
| 8 | -.125 |
| 1 | -.802 |
| 2 | -.863 |
| 5 | -.897 |
| 12 | -.902 |
| 3 | -.913 |
| 10 | -.927 |
| 9 | -.938 |
| 6 | -.961 |

Figure 10.4

*(See page 235)

Manager X (Sandvik)

Distance between elements (Expressing relationships between elements)*

| | Scores | | |
|---|---|---|---|
| Element | E1 | E10 | E12 |
| 1 | -- | .708 | .383 |
| 2 | .553 | .707 | .639 |
| 3 | .739 | .806 | .872 |
| 4 | .542 | 1.127 | .376 |
| 5 | 2.005 | 2.628 | 1.721 |
| 6 | .680 | 1.199 | .435 |
| 7 | .583 | .986 | .508 |
| 8 | .346 | .679 | .516 |
| 9 | .795 | 1.396 | .494 |
| 10 | .708 | -- | .971 |
| 11 | .516 | 1.035 | .268 |
| 12 | .383 | .971 | -- |

Table 10.7a

Relations between constructs and self elements (Degrees)*

| | Scores | | |
|---|---|---|---|
| Construct | E1 | E10 | E12 |
| 1 | 48.5 | 29.9 | 97.1 |
| 2 | 54.6 | 28.3 | 105.1 |
| 3 | 44.1 | 20.0 | 72.3 |
| 4 | 73.1 | 46.5 | 108.3 |
| 5 | 39.3 | 29.3 | 66.8 |
| 6 | 37.8 | 36.2 | 55.1 |
| 7 | 40.8 | 20.7 | 89.4 |
| 8 | 52.8 | 26.2 | 95.9 |
| 9 | 56.5 | 18.5 | 94.0 |
| 10 | 44.7 | 16.9 | 91.3 |
| 11 | 96.0 | 131.5 | 53.5 |
| 12 | 44.2 | 15.8 | 92.2 |
| 13 | 40.1 | 19.7 | 87.8 |

Table 10.7b

*(See page 236)

Manager X (Sandvik)

## DISTANCE BETWEEN ELEMENTS

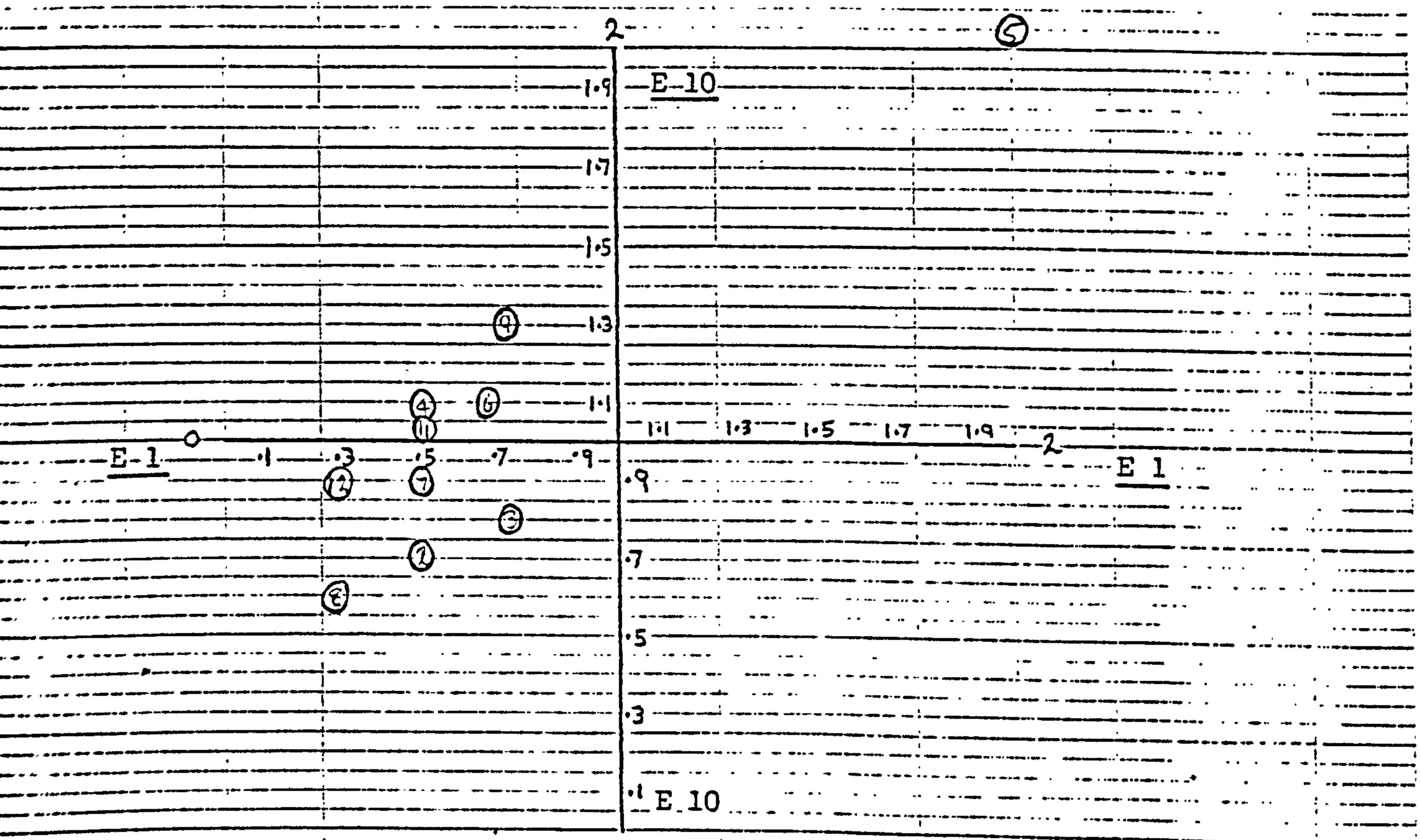



DIAGRAM G1

Manager X (Sandvik)

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

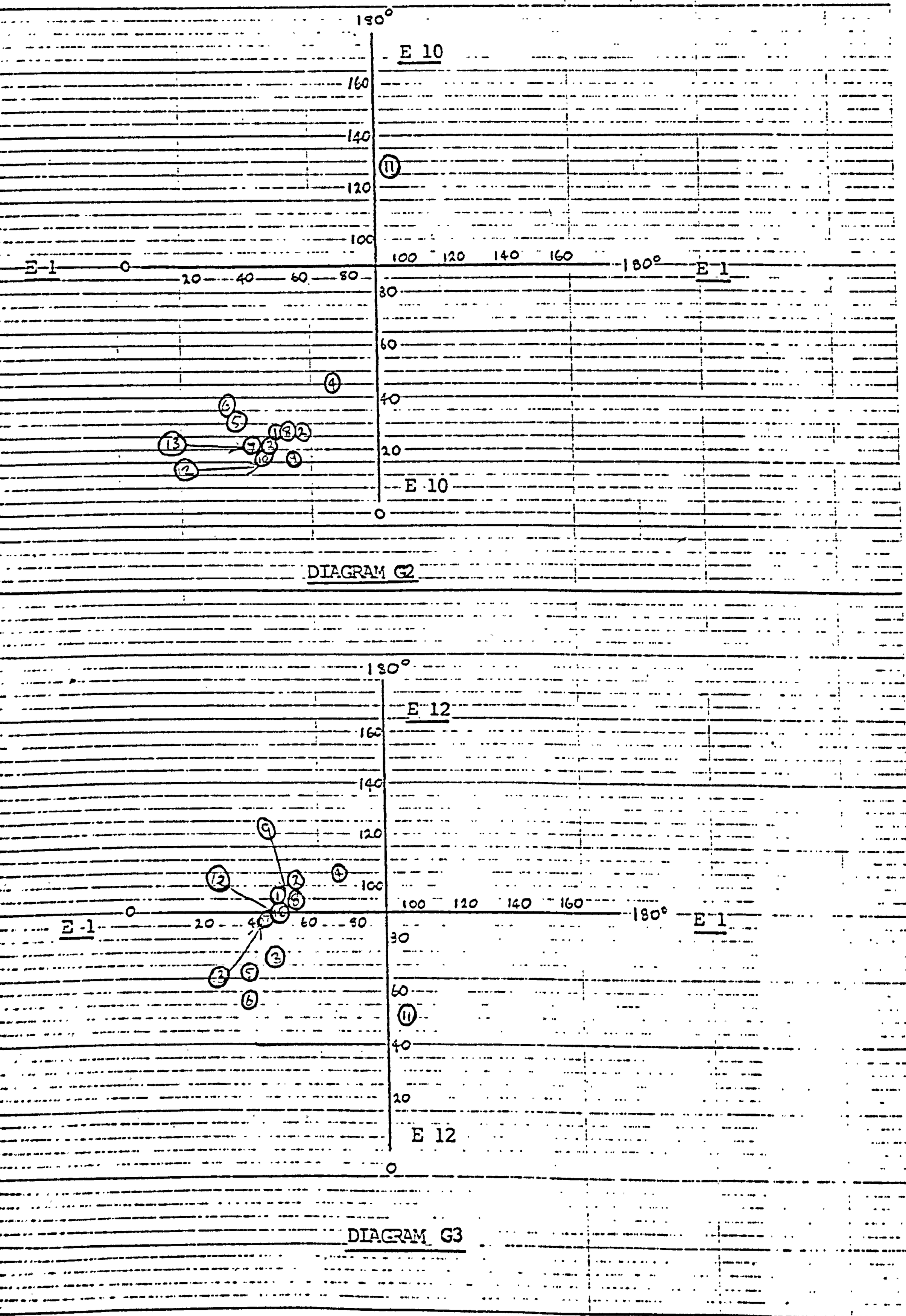



DIAGRAM G2




DIAGRAM G3

Manager R (San)

Mr. R is the Technical Sales Manager for the Steel Division. Although the job has a high technical content it is basically a selling job. He is 43 and has been with the company for 14 years.

Mr. R feels he requires a high degree of personal satisfaction from a job. He likes long term projects, and something where it is possible to develop a strategy. He feels that if he did not enjoy his job or stopped working hard he would leave the company.

Promotion is important, but only so that he can get an opportunity to exert greater influence on decisions. He feels frustrated by many of the decisions of senior management and would get greater satisfaction from work if he was more involved.

Pay is not greatly important, although he sometimes gets frustrated by the low percentage increases. He feels pay is almost entirely a reflection of worth, and he is content with it at the moment.

The external assessor commented that Mr. R is an intelligent technical manager who is solid and dependable. He will not go to the top, however, as he is too quiet and has not enough dynamism. Nevertheless, he is a good manager and an above average performer. He was rated at 3 for hard work. He rated himself at 2.

In relation to the repertory grid, his constructs are as follows,

1. Hard working - Not hard working
2. Ambitious - Not ambitious
3. Optimistic - Pessimistic
4. Cooperative - Uncooperative
5. Capable - Incapable
6. Positive approach - Negative approach
7. Considerate - Inconsiderate
8. Loyal - Disloyal
9. Resolute - Irresolute

10. Logical - Illogical
11. Modest - Immodest
12. Rational - Irrational

No particular type of construct is emphasised by Mr. R, although on Component 1 (Figure 10.4), construct 1, hard work, is 8th, while, C10 logical, and C12 rational, are placed in the top five constructs. The other three are, C6 positive approach, C9 resolute, and C3 optimistic. Two constructs, C11 modest, and C7 considerate, are actually placed on the opposite dimension to the rest of the constructs.

If we turn to the construct/element distances (Table 10.8b) we find, C2 ambitious, quite distant on both E1 (92.7) and E12 (123.6). This, along with C6 positive approach, which is also quite distant on E1 (74.7) and E12 (99.6) would seem to confirm the external manager's assessment that Mr. R is not very keen to get ahead, or at least the perception of that. Moreover, if one takes the shorter distances on E1, C8 loyal (41.0), C4 cooperative (45.2), and C3 optimistic (53.1), the picture of a good solid manager takes shape. However, if one compares more closely the construct distances on each of the self elements one finds evidence for some possible self frustration. Only two constructs are shorter on E12 than on E1; C7 considerate, and C11 modest. Both have E10 distances greater than the E1 distance which means he would like to be less modest or considerate. Ideally, he sees himself as rational, optimistic, positive, capable, and resolute. His organisation perception, however, is of someone who is considerate, loyal, cooperative, modest and logical. Hard work does not really come into it. But the interesting thing is not that his organisation self may be a reasonable reflection of how he is actually seen, but that his organisation self image, which is different from how he would ideally like to be, may well be the cause of great frustration in the future. He is frustrated with the decisions of senior management, but it would seem unlikely that he will be promoted, and possibly be able to influence those decisions, because he is a considerate, loyal, cooperative person. If he was, as he ideally sees himself, positive, capable and resolute it would seem probable

Manager R (Sandvik)

Distance between elements (Expressing relationships between elements)*

| | Scores | | |
|---|---|---|---|
| Element | E1 | E10 | E12 |
| 1 | -- | .543 | .285 |
| 2 | .465 | .508 | .636 |
| 3 | .807 | .765 | .962 |
| 4 | .501 | .722 | .489 |
| 5 | 1.225 | 1.665 | 1.103 |
| 6 | .086 | .522 | .343 |
| 7 | .928 | 1.134 | .996 |
| 8 | .662 | .755 | .782 |
| 9 | 1.367 | 1.796 | 1.319 |
| 10 | .543 | -- | .683 |
| 11 | .280 | .506 | .454 |
| 12 | .285 | .683 | -- |

Table 10.8a

Relations between constructs and self elements (Degrees)*

| | Scores | | |
|---|---|---|---|
| Construct | E1 | E10 | E12 |
| 1 | 65.9 | 40.7 | 82.4 |
| 2 | 92.7 | 58.5 | 123.6 |
| 3 | 53.1 | 29.3 | 89.3 |
| 4 | 45.2 | 65.2 | 54.8 |
| 5 | 65.4 | 36.1 | 86.5 |
| 6 | 74.7 | 34.2 | 99.6 |
| 7 | 69.6 | 87.3 | 50.7 |
| 8 | 41.0 | 56.7 | 51.5 |
| 9 | 76.7 | 37.6 | 107.9 |
| 10 | 54.4 | 38.6 | 80.5 |
| 11 | 74.5 | 104.6 | 66.8 |
| 12 | 55.8 | 29.0 | 84.2 |

Table 10.8b

*(See page 236)

Manager R (Sandvik)

DISTANCE BETWEEN ELEMENTS

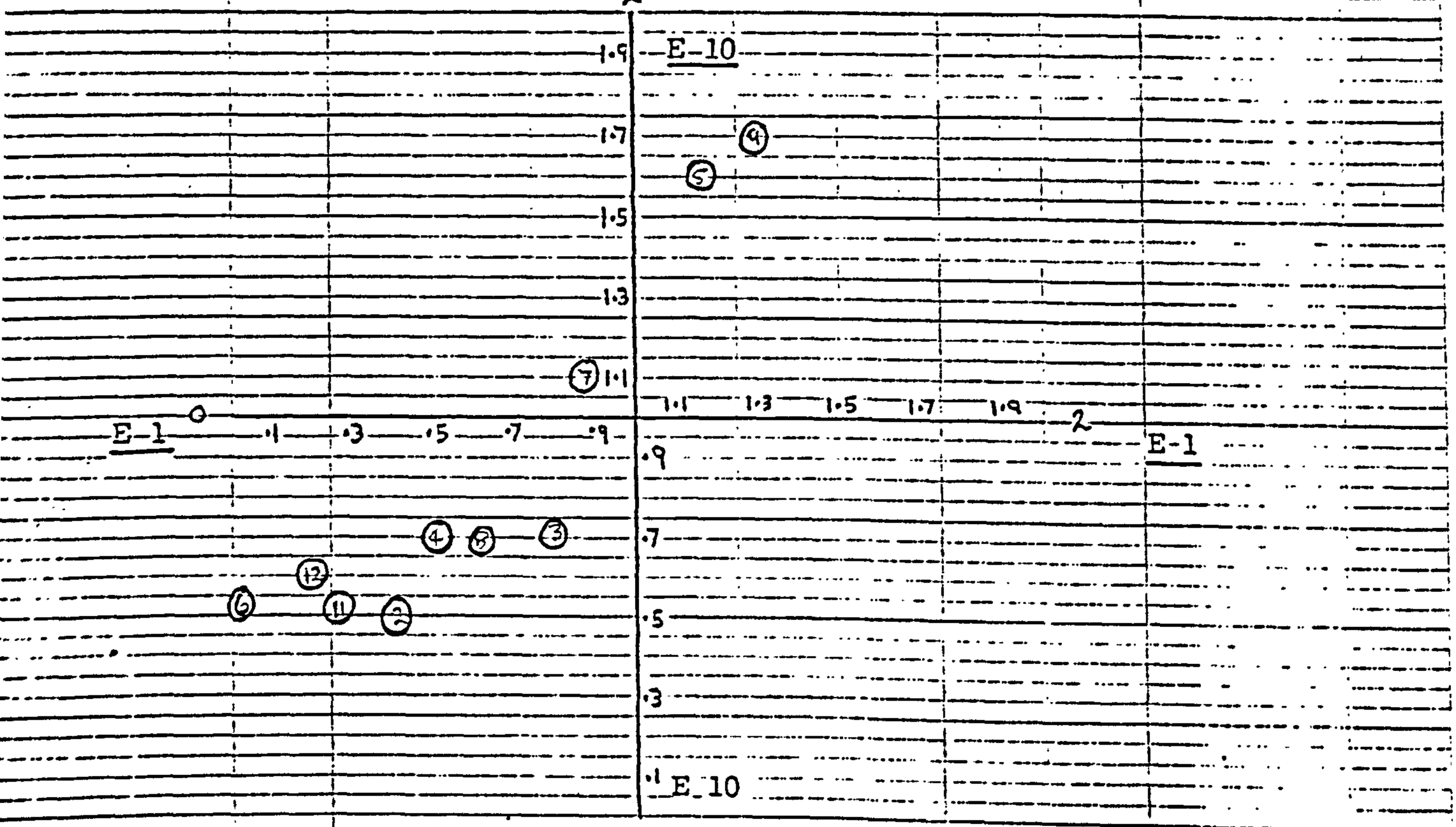
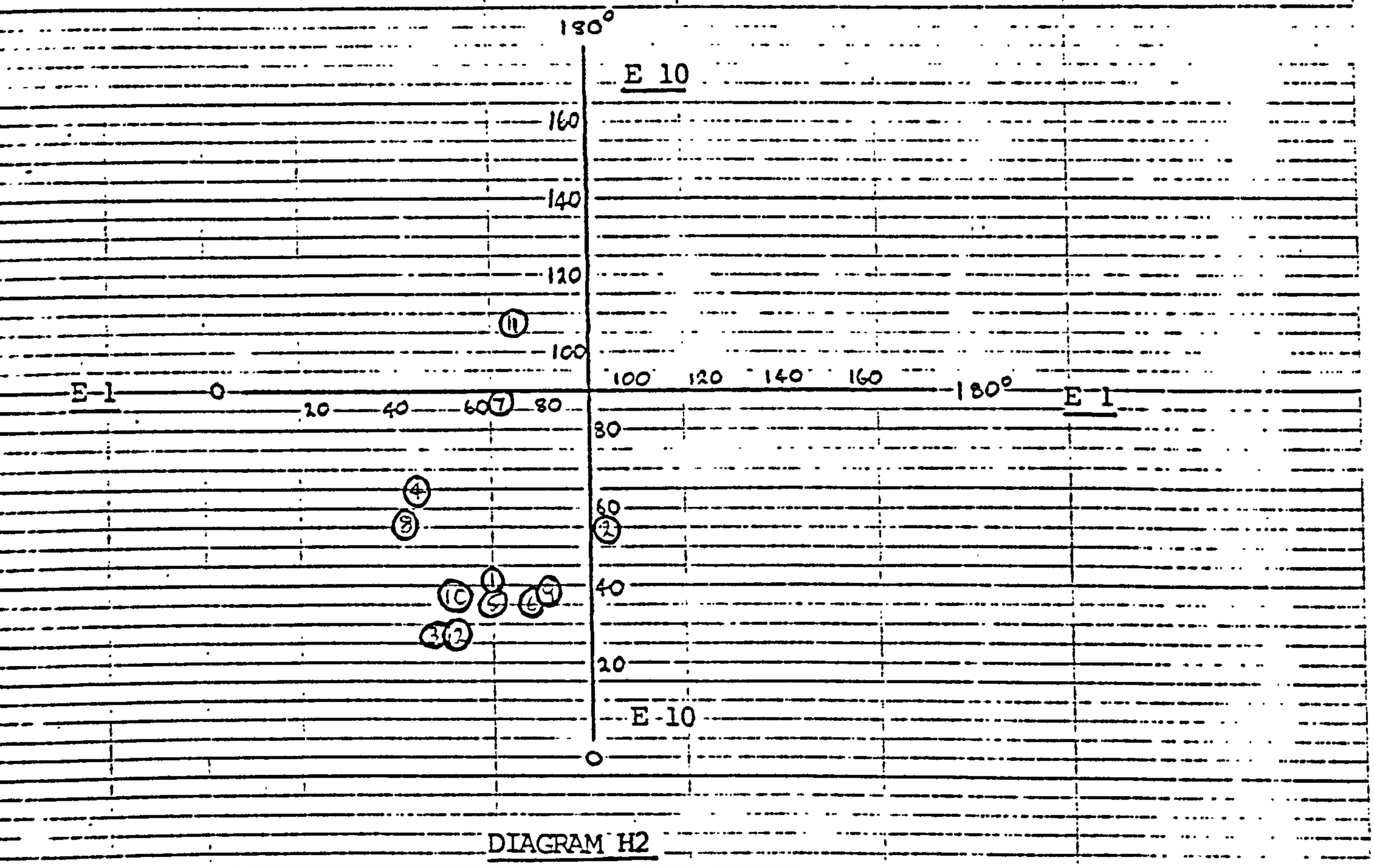



DIAGRAM H1

Manager R (Sandvik)

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS



from the external assessor's comments, that he would be portraying aspects that would give him a greater chance of being promoted, and thus of removing the frustration.

The problem, of course, is how one moves from the organisation self to the ideal. Interestingly, this discrepancy may contribute to the frustration with senior management decisions. He must realise that the organisation self he portrays is one likely to be 'put on'. It is also interesting that again, as with the previous manager, his E1/E10 distance is not particularly short (.543). It may be that one's feelings of self esteem in some way affect the changes that one can make to one's organisation esteem.

(Two additional case studies are presented in appendix 10.4).

Overall Conclusion

As was pointed out at the beginning of the section, this last group of case studies was prompted by the way the organisation self stood out in relation to managers W and AD in the previous section. The case studies above show that the organisation self concept may indicate, in some cases, possible problem areas for a manager, and in others, help explain why he may have such problems, or at least help explain his particular approach to work.

In addition, the following gives a further indication that the notion of an organisation self concept may be quite important. The first two sets of case studies at the beginning of the chapter and the four additional studies in the appendices, (and also managers W and AD) were picked purely because they were illustrative of the broad point under discussion, and the idea that an organisation self concept might play any part in the analysis was not considered at that stage. The number of managers, for instance, in a group of 44 who are both very hard working and dissatisfied with their pay is quite limited, (in fact, to 4), despite the fact they are from contracting organisations. But if one briefly returns to the previous case studies, including those in the appendices, one finds that in all except 7 of the 8 studies, organisation self, E12, seems to have a particular bearing.

With regard to the first group, (hard working managers, but frustrated with pay), the managers' E1/E12 distance is relatively very low, (A .183, L .106, and appendices cases G .126, Z .196). In relation to the second group, (managers who are all rated relatively low for hard work, although see themselves as hard working), in three of the four cases, (including the two in the appendices), the organisation self concept has some bearing on the analysis. In the third group, (managers seen as not hard working and feel they are not hard working), in two of the three studies, E12 plays a significant part in the discussion.

Of course, the obvious question is to what extent E12 plays a part in understanding the other managers not included as case studies. To

some extent there are some patterns. In the six pages following, the E1/E12 plots are presented for six managers with an external rating of 1 or 2 (Diagrams 10.1 to 10.6), and also for six managers with an external rating of 3 or 4 (Diagrams 10.7 to 10.12). The plots of the more hard working managers tend to have more constructs nearer the 0 dimensions of E1 and E12 (west of the line connecting the two 40 positions) and/or tend to be more clustered together than those for the less hard working managers. This would generally seem to fit in with the plots of the hard working managers in the case studies, and also for those not hard working.

However, it would be wrong to imply that all hard working managers can be distinguished from those less hard working by the position of their constructs on E12. The two diagrams following these twelve plots (Diagrams 10.13 and 10.14) show one hard working manager and one not so hard working and the differences are less obvious. Nevertheless, manager I's (Sandvik) plot (with a hard work rating of 2) shows his constructs to be more closely bunched than those of manager V (Sandvik), with a rating of 3. The two plots after these, (Diagrams 10.15 and 10.16), however, indicate that the above pattern is not a hard and fast rule; manager Y (Sandvik) is the less hard working (rating of 3) while manager M (Lansing) has a rating of 2.

There are many reasons why not all of the managers fit the pattern outlined earlier. First, the indicators, both for assessing hard work and for measuring the self concept, are really very crude, despite the sophistication of the repertory grid output. To some extent, the difference between manager M (Lansing) and manager Y (Sandvik) in terms of hard work, may be miniscule, or even reversed, considering they were rated by separate people from different organisations with probably different assessments themselves of what hard work means. Secondly, while consideration is being given here to hard work, E12 may more easily explain other factors, for instance, why some people are ambitious, or dynamic, or committed, or just generally frustrated. These factors may directly or indirectly affect hard work, but explaining them as well, is beyond the scope of this study.

## E1/E12-Construct Plot

Manager O (Lansing)

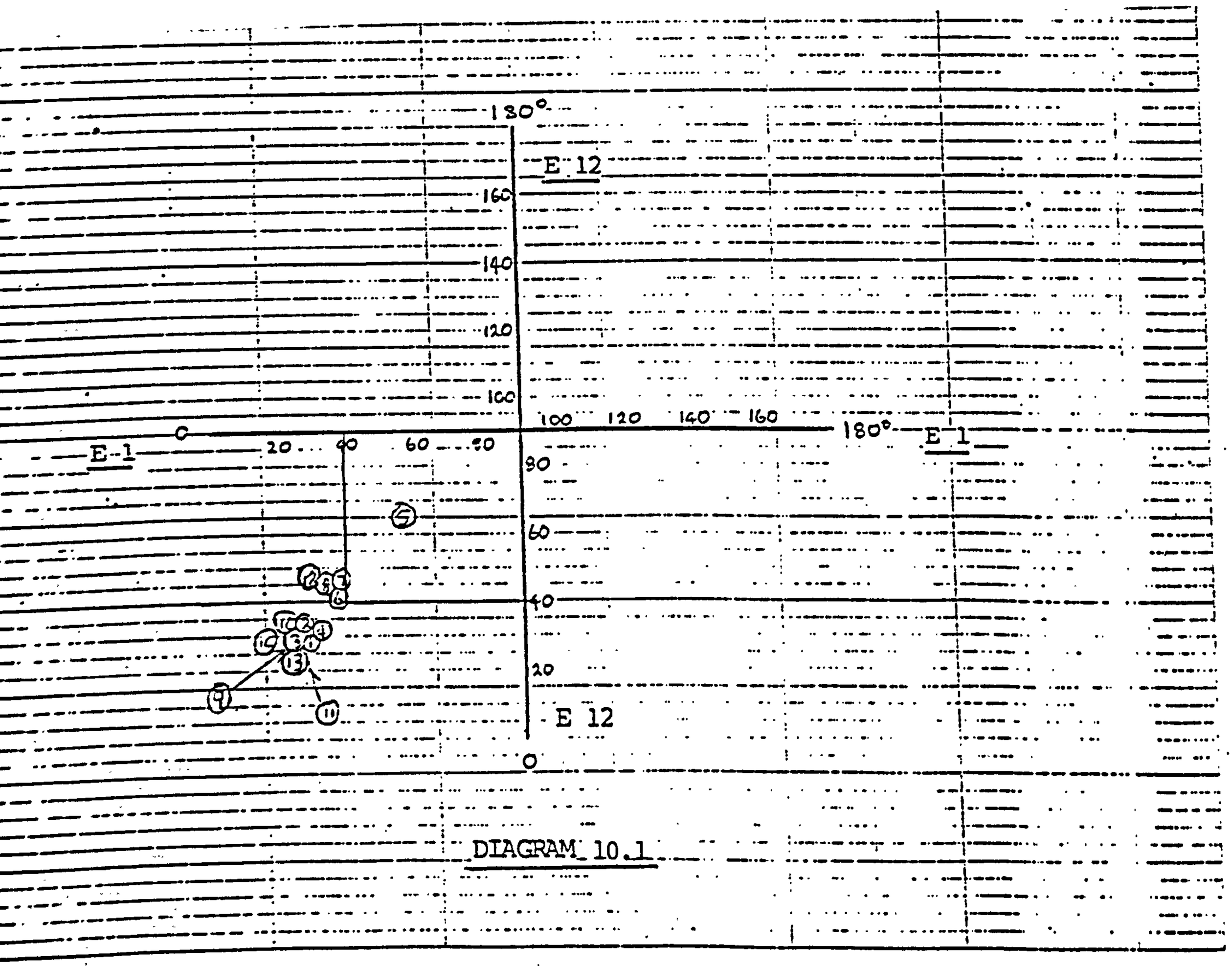



DIAGRAM 10.1

## E1/E12-Construct Plot

## Manager AC (Sandvik)

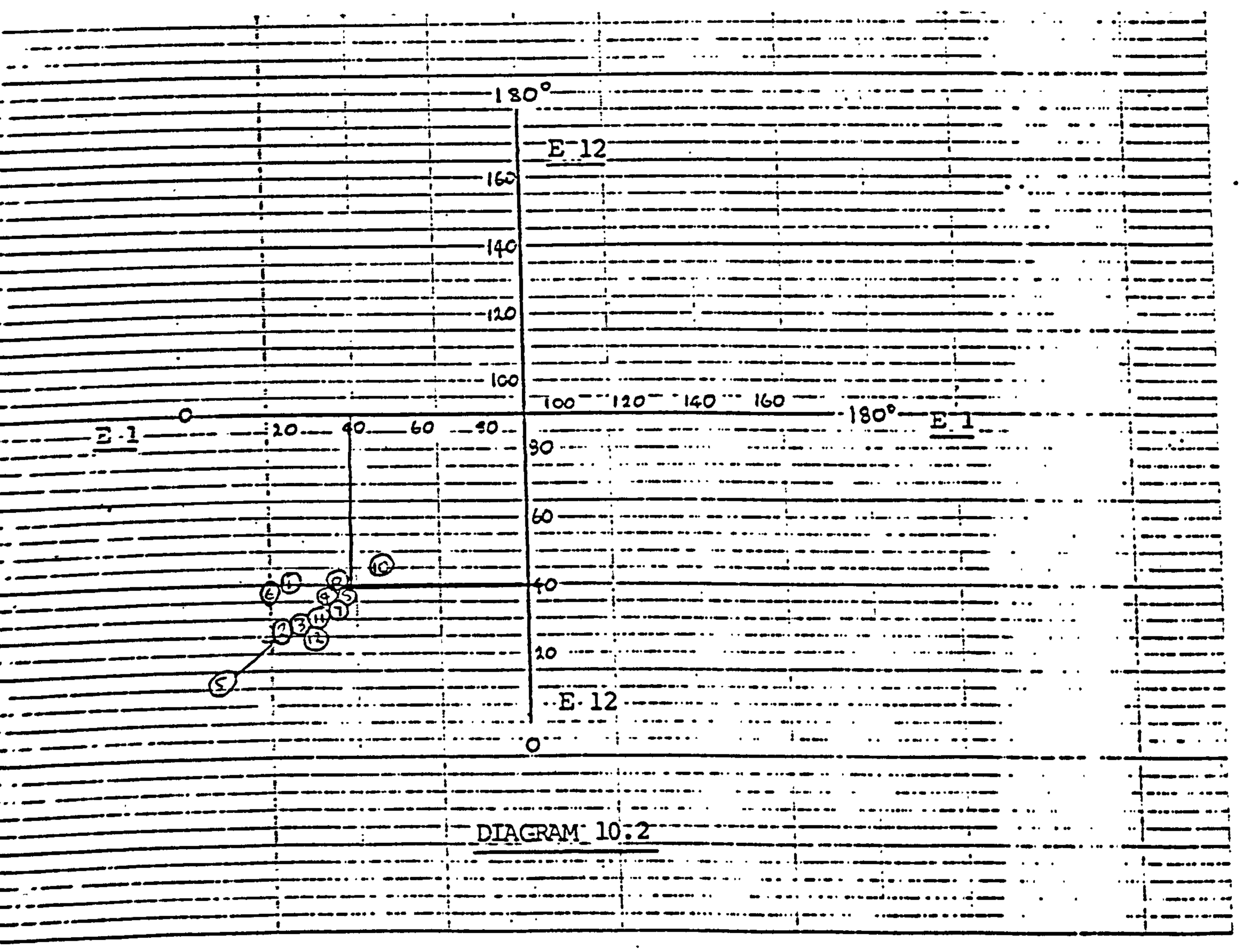



DIAGRAM 10.2

E1/E12-Construct Plot

Manager D (Lansing)

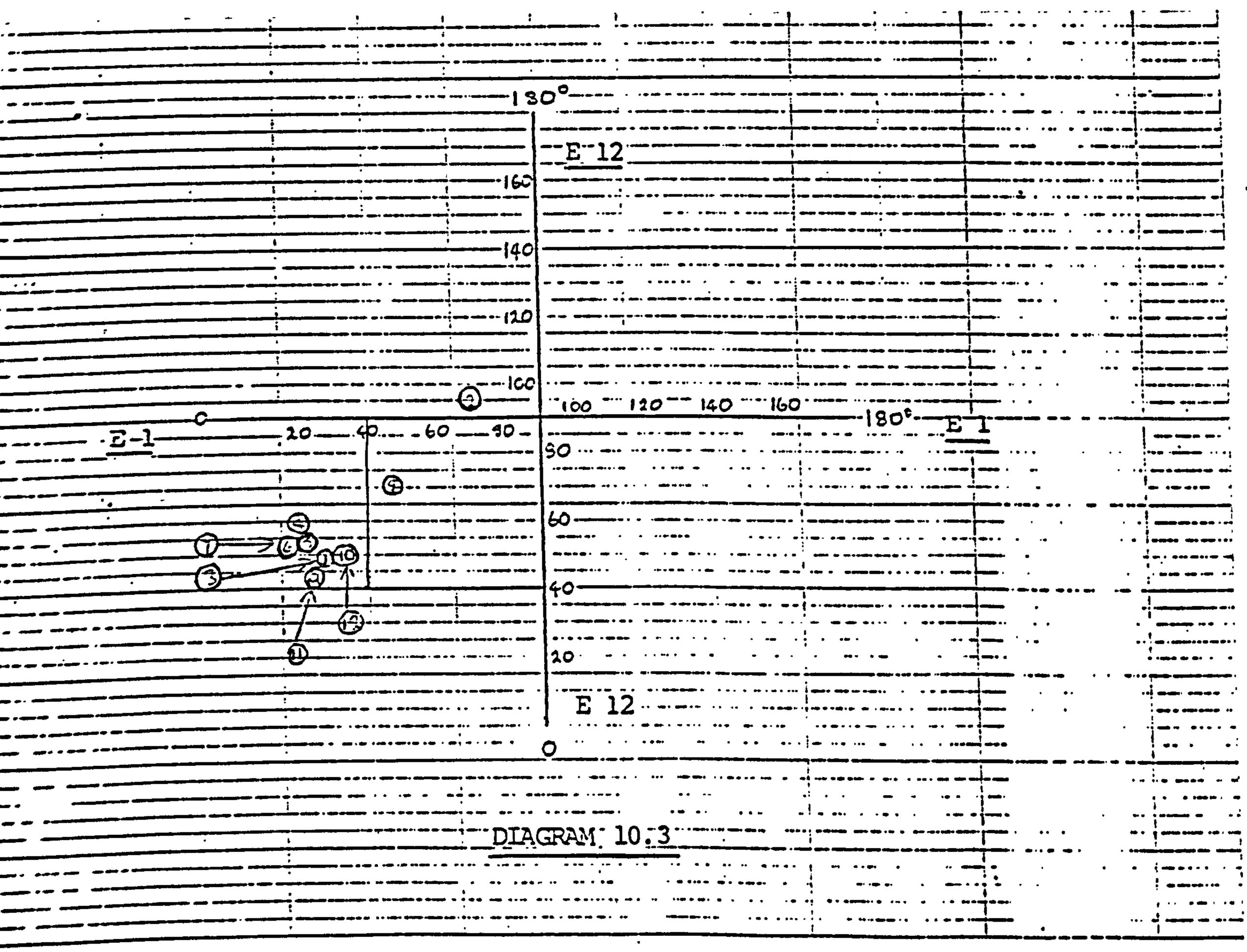



DIAGRAM 10.3

## E1/E12-Construct Plot

### Manager E (Lansing)

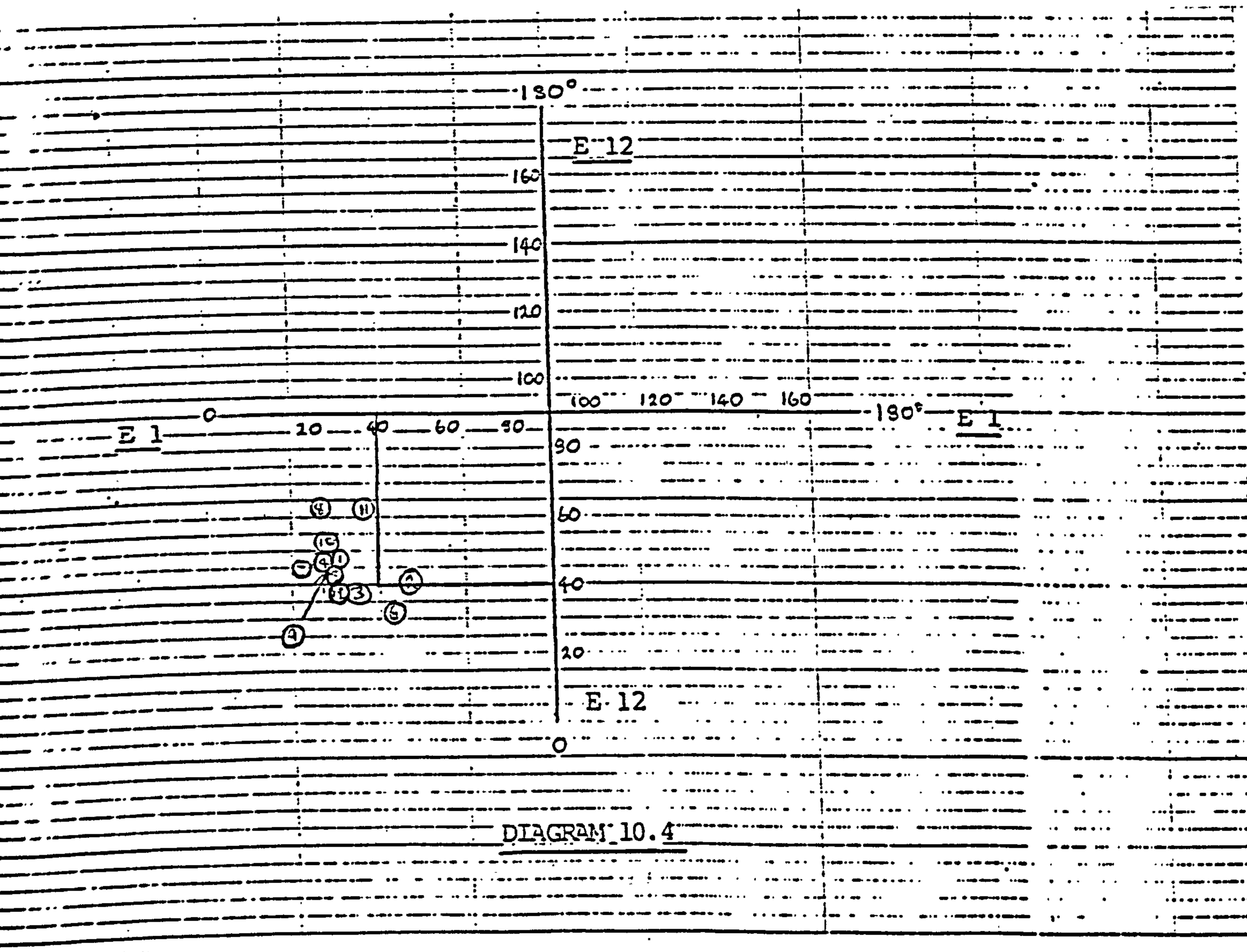



DIAGRAM 10.4

E1/E12-Construct Plot

Manager K (Lansing)

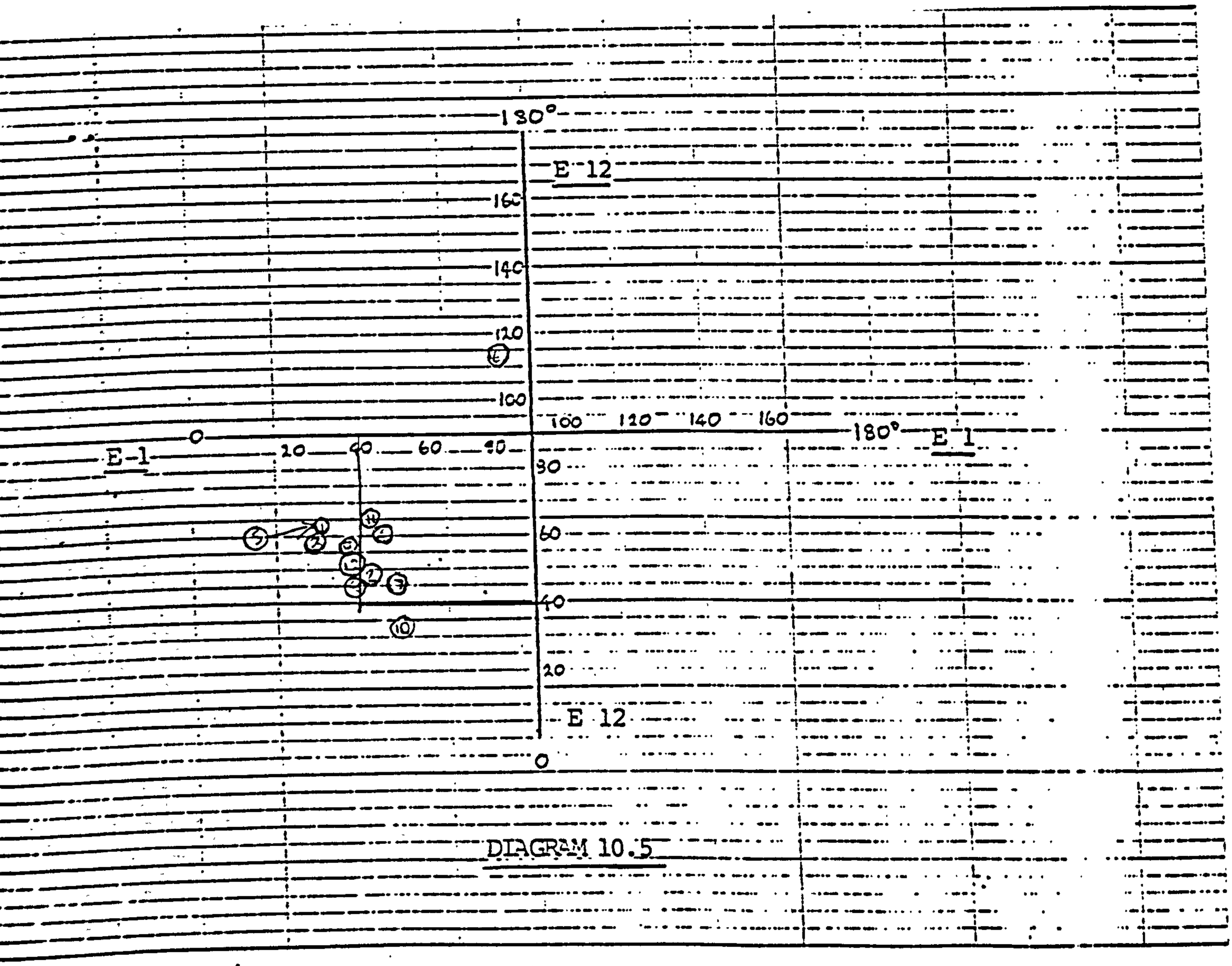



DIAGRAM 10.5

## E1/E12-Construct Plot

Manager Q (Sandvik)

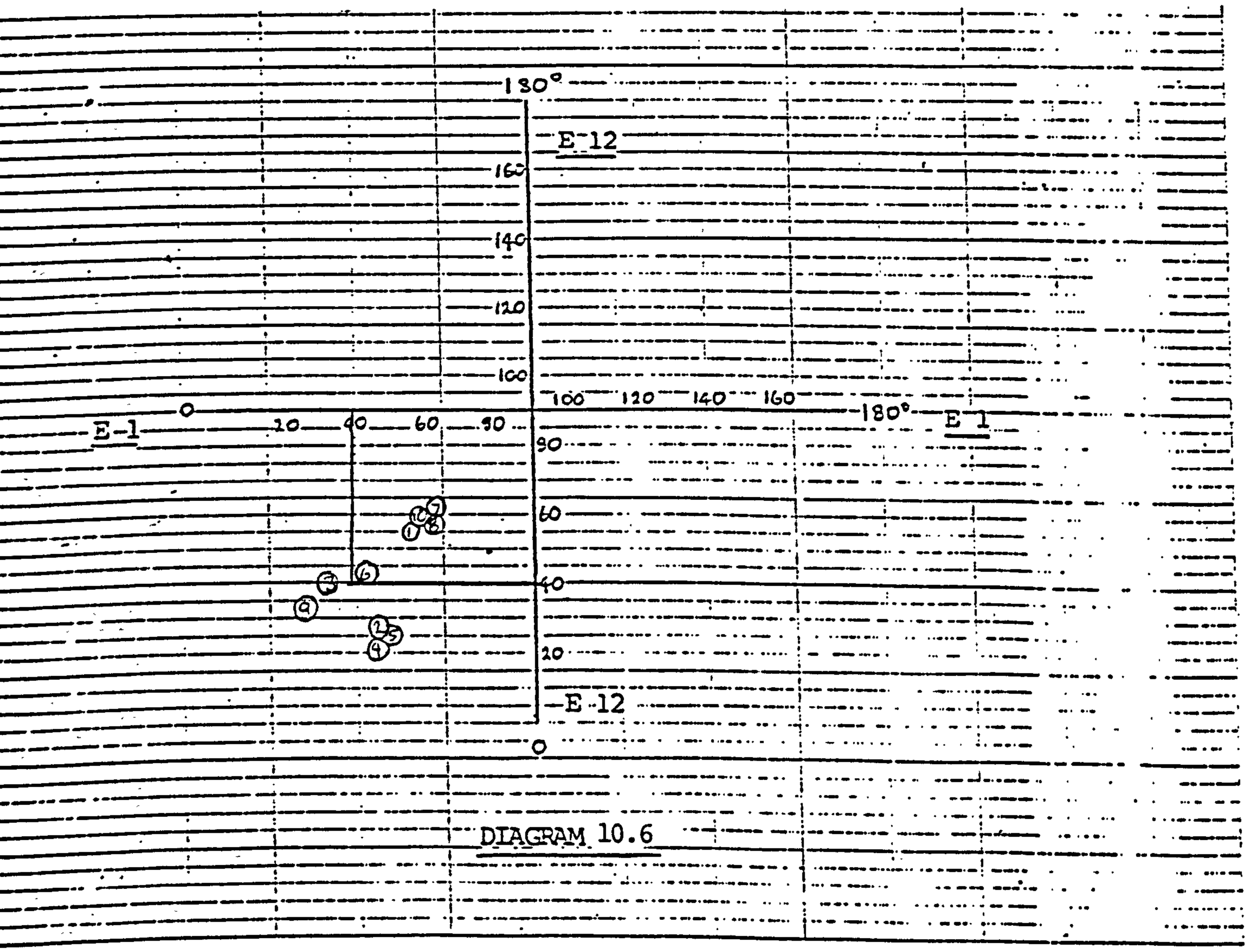



DIAGRAM 10.6

E1/E12-Construct Plot

Manager G (Sandvik)

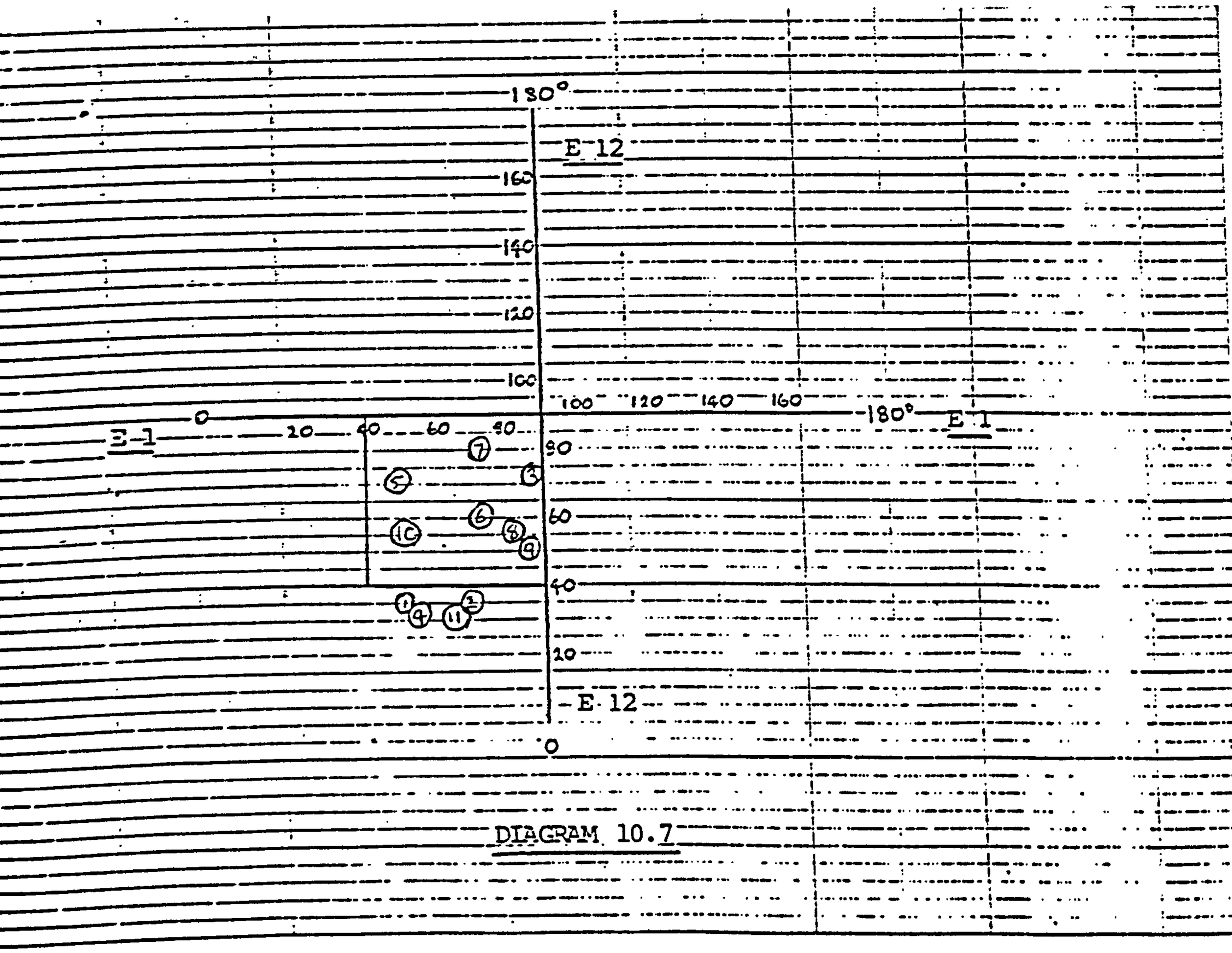



DIAGRAM 10.7

## E1/E12-Construct Plot

Manager N (Lansing)

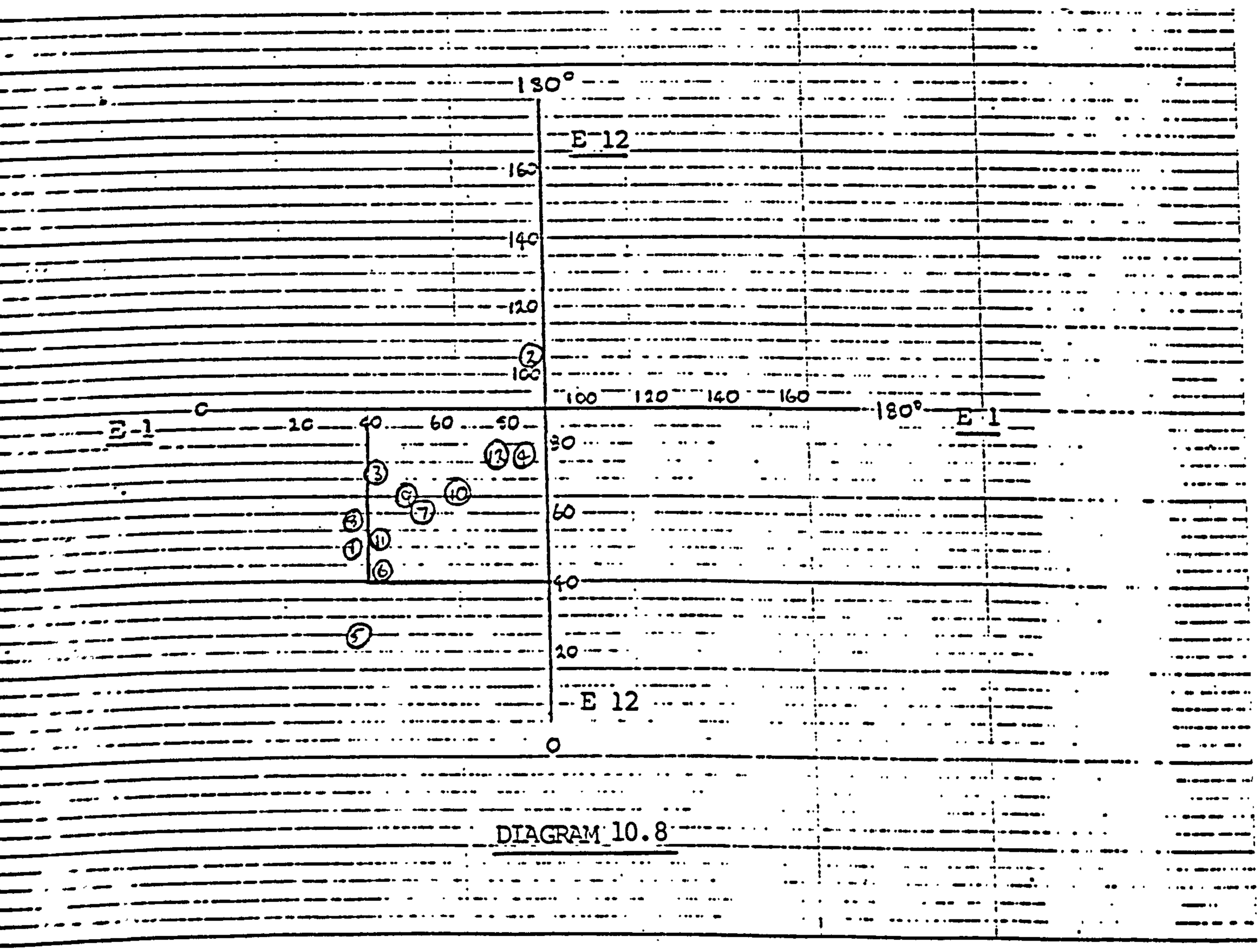



DIAGRAM 10.8

## E1/E12-Construct Plot

Manager H (Sandvik)

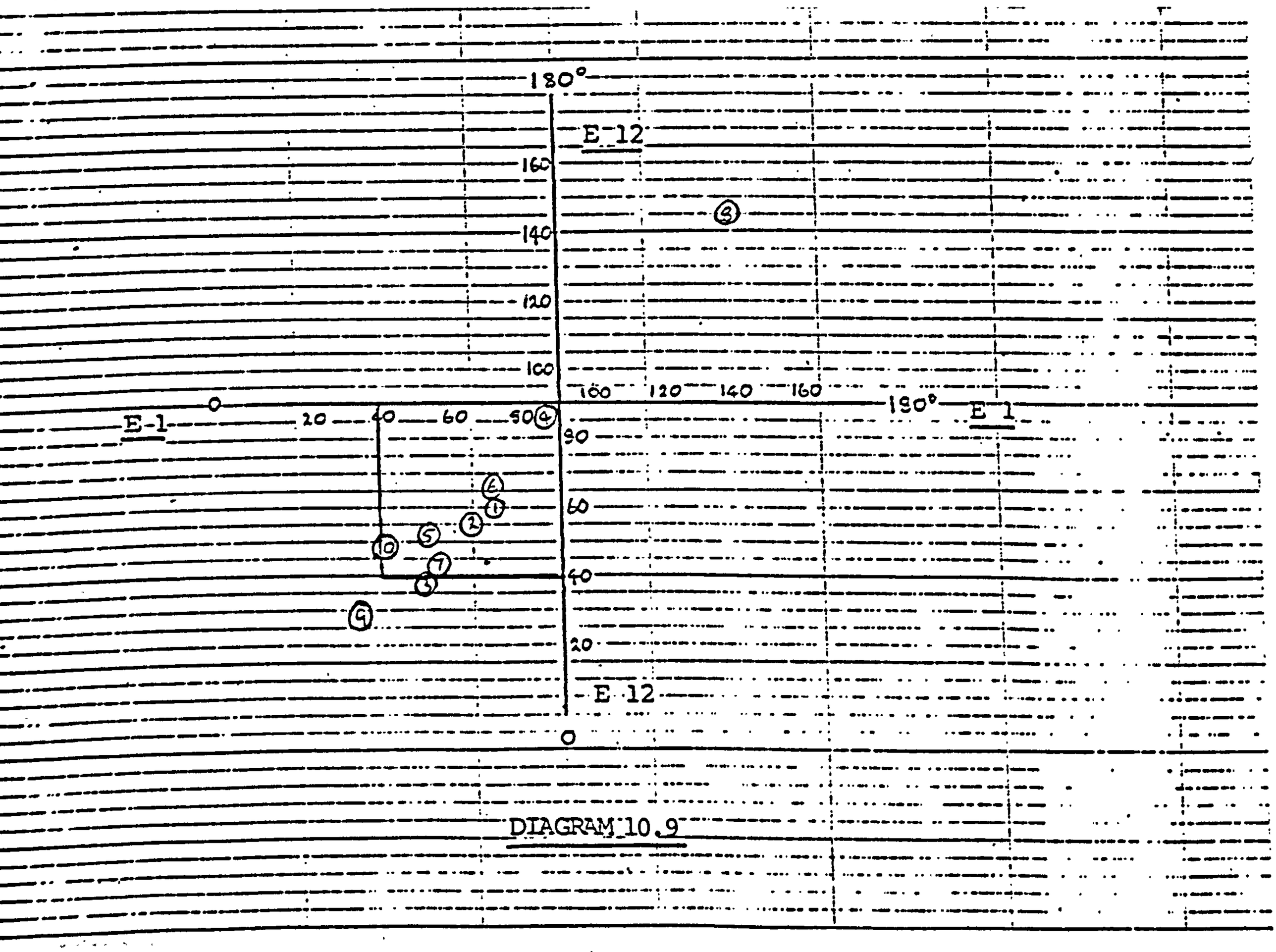



DIAGRAM 10.9

## E1/E12-Construct Plot

Manager J (Lansing)

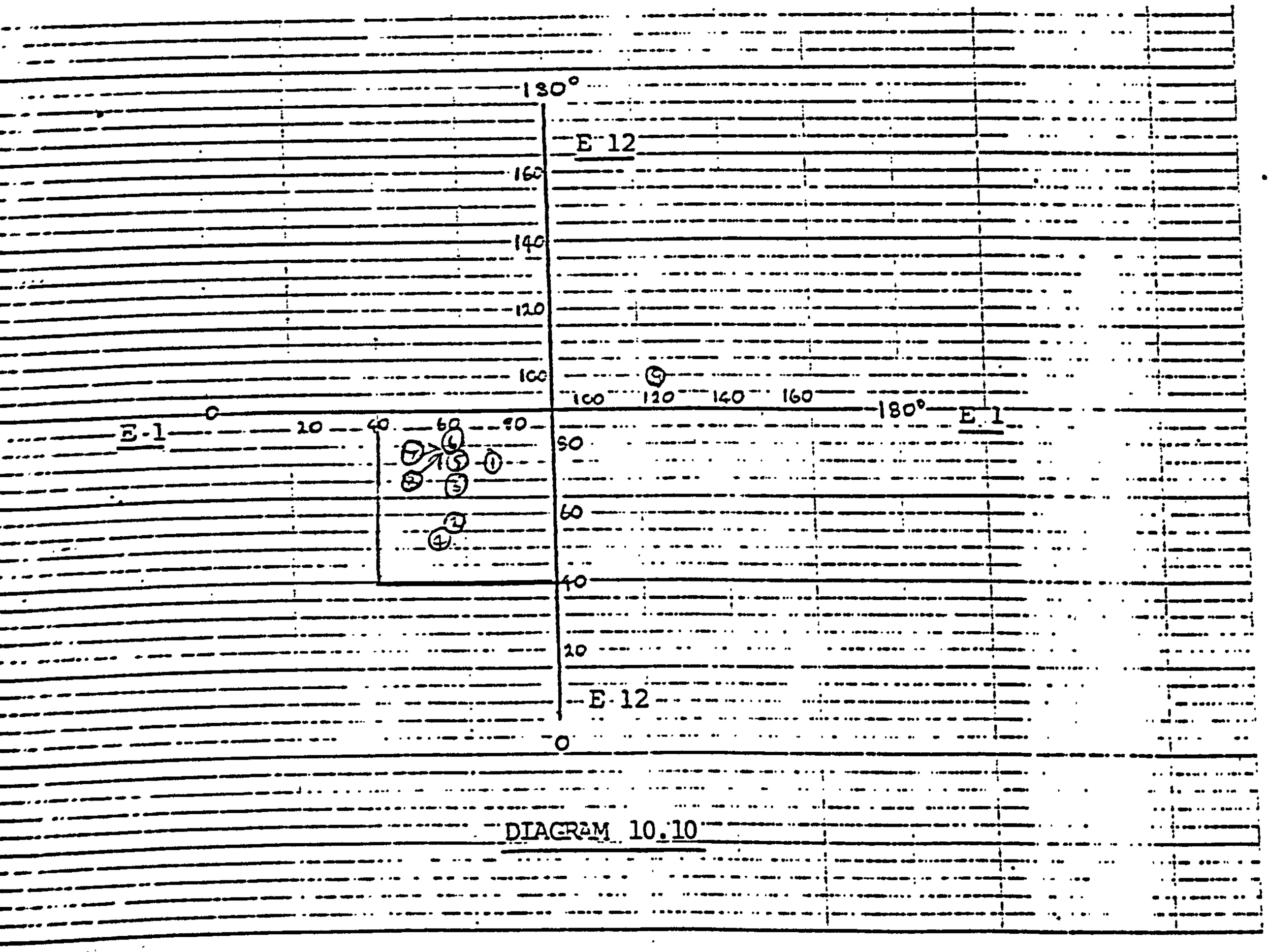



DIAGRAM 10.10

## E1/E12-Construct Plot

Manager F (Sandvik)

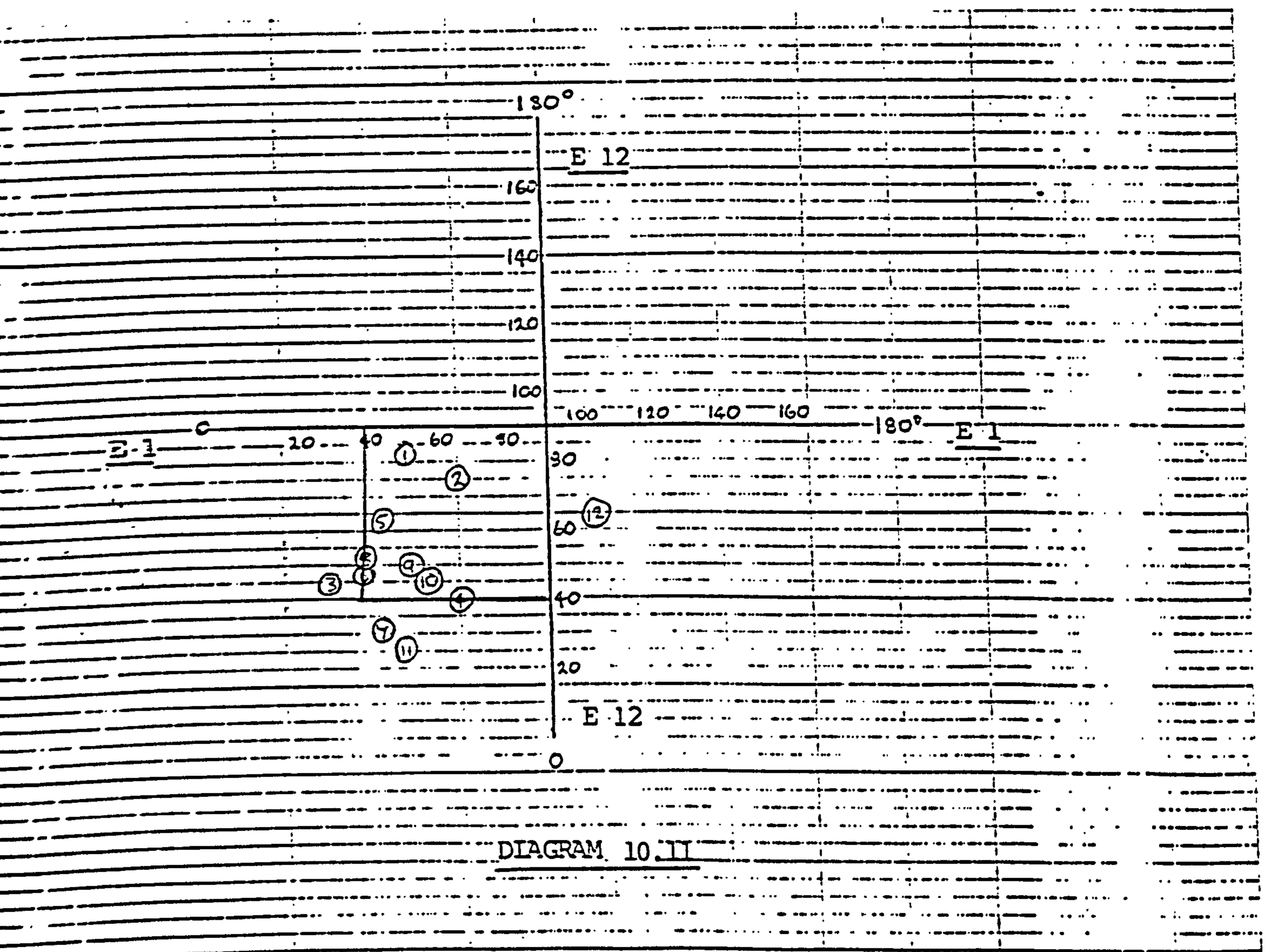



DIAGRAM 10.II

## E1/E12 Construct Plot

### Manager T (Sandvik)

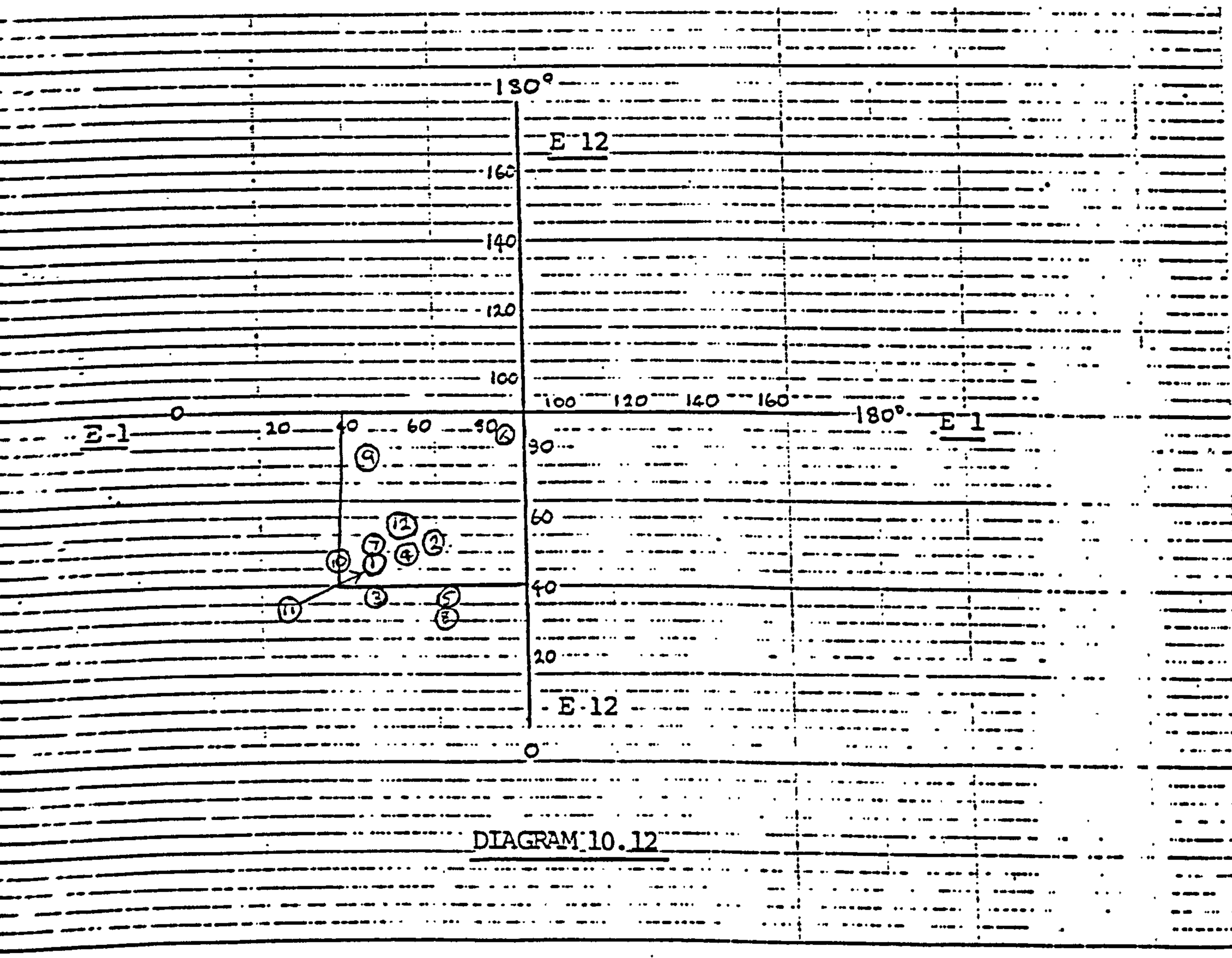



DIAGRAM 10.12

## E1/E12 Construct Plot

### Manager I (Sandvik)

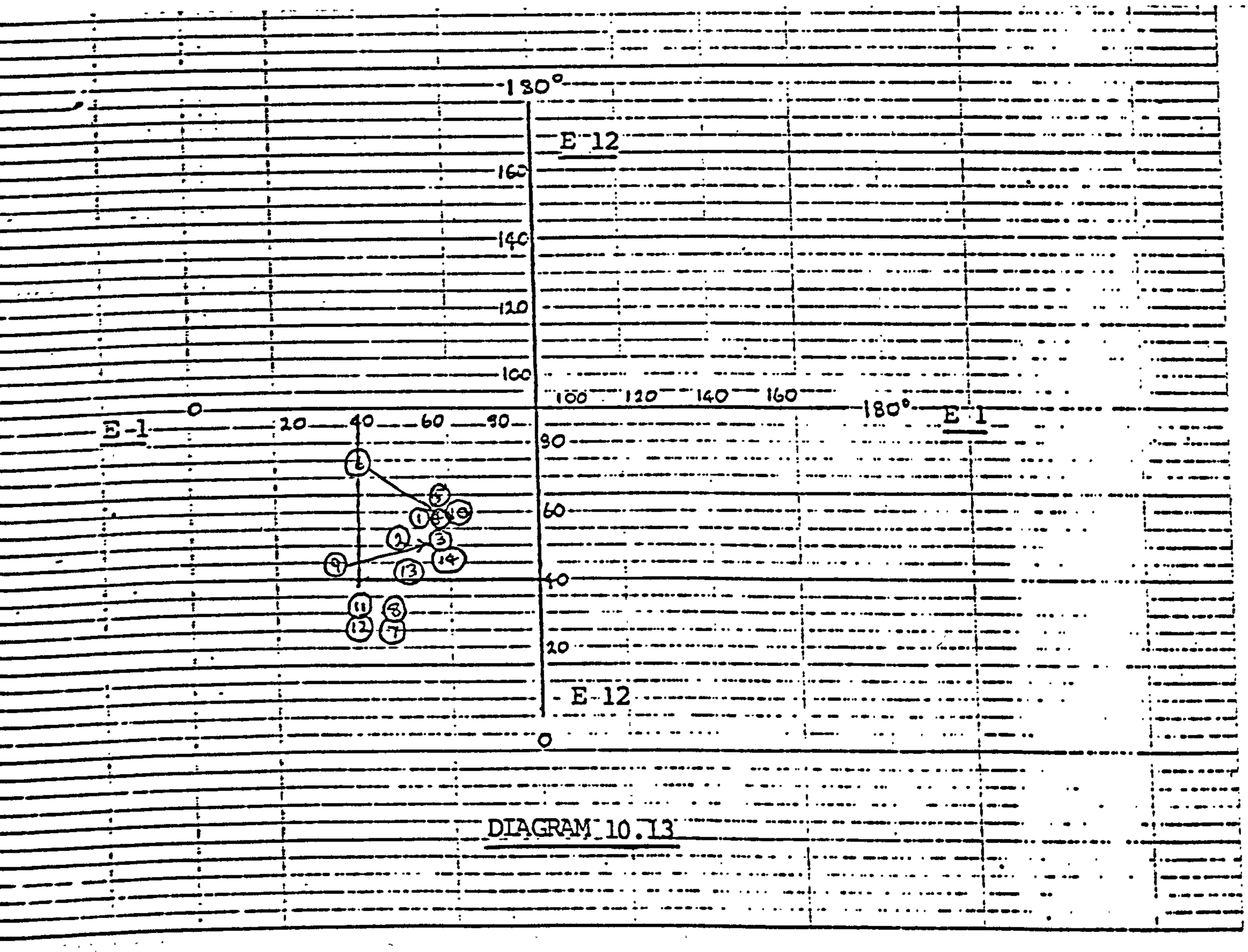



DIAGRAM 10.13

E1/E12-Construct Plot

Manager V (Sandvik)

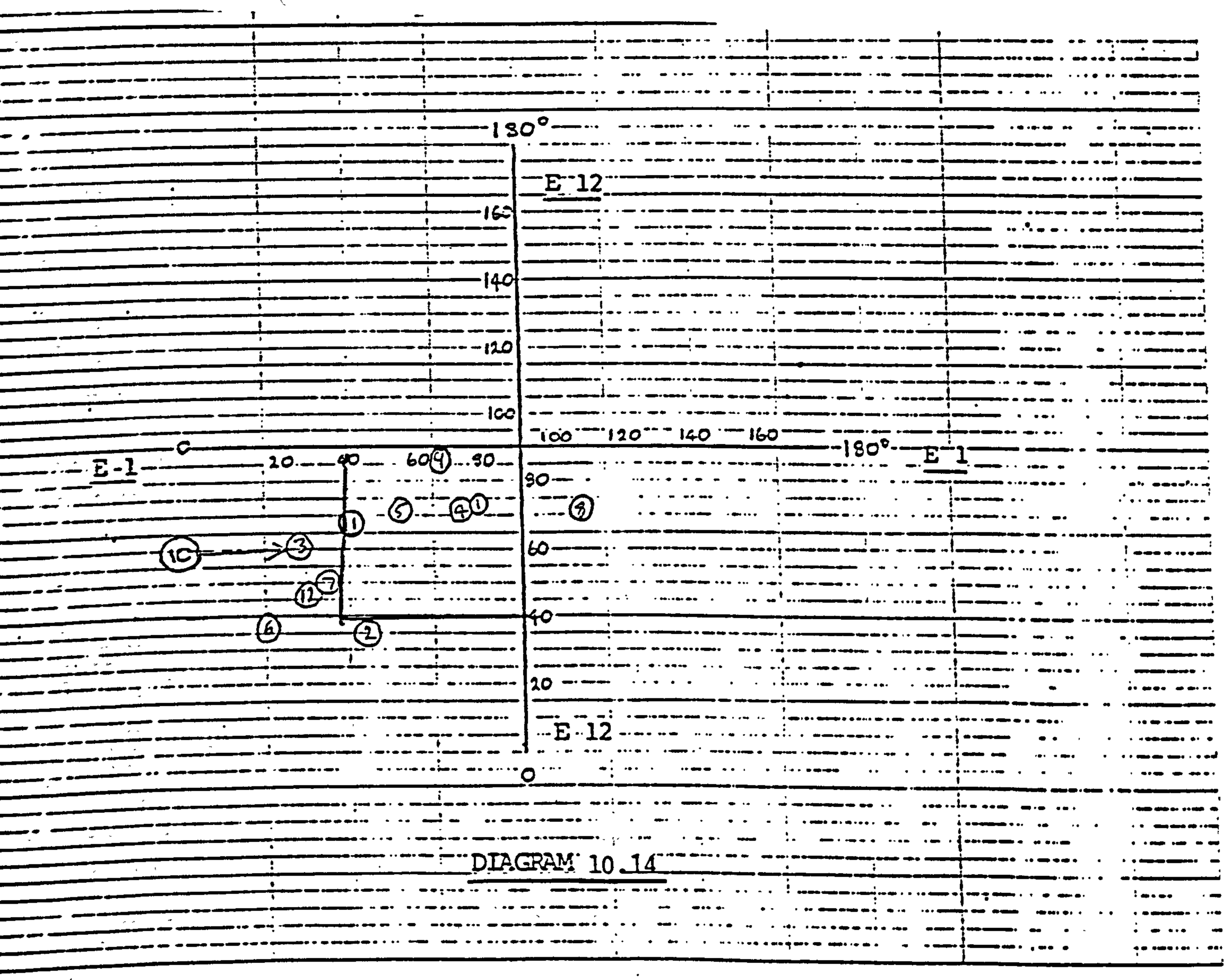



DIAGRAM 10.14

## E1/E12-Construct Plot

Manager Y (Sandvik)

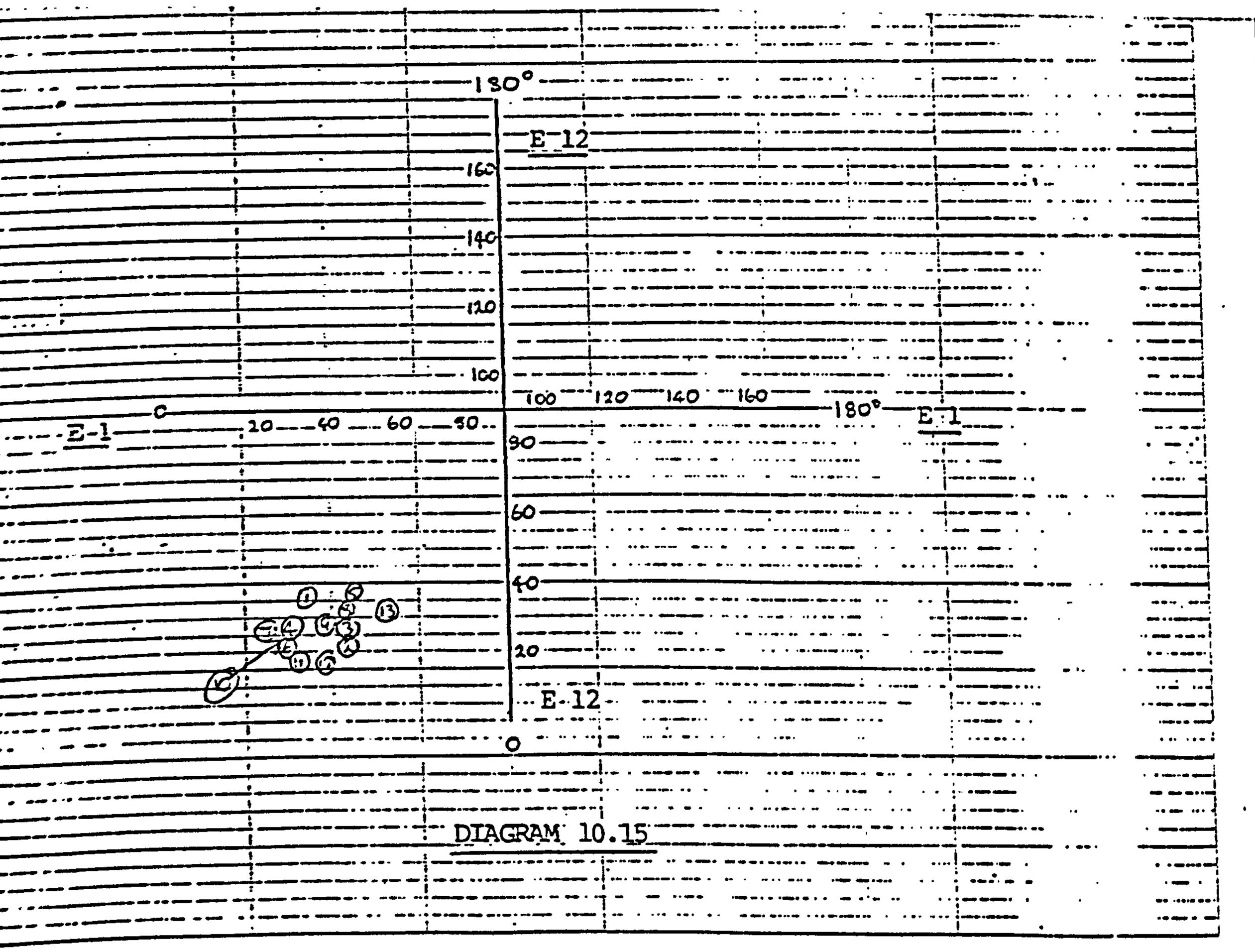



DIAGRAM 10.15

## E1/E12-Construct Plot

### Manager M (Lansing)

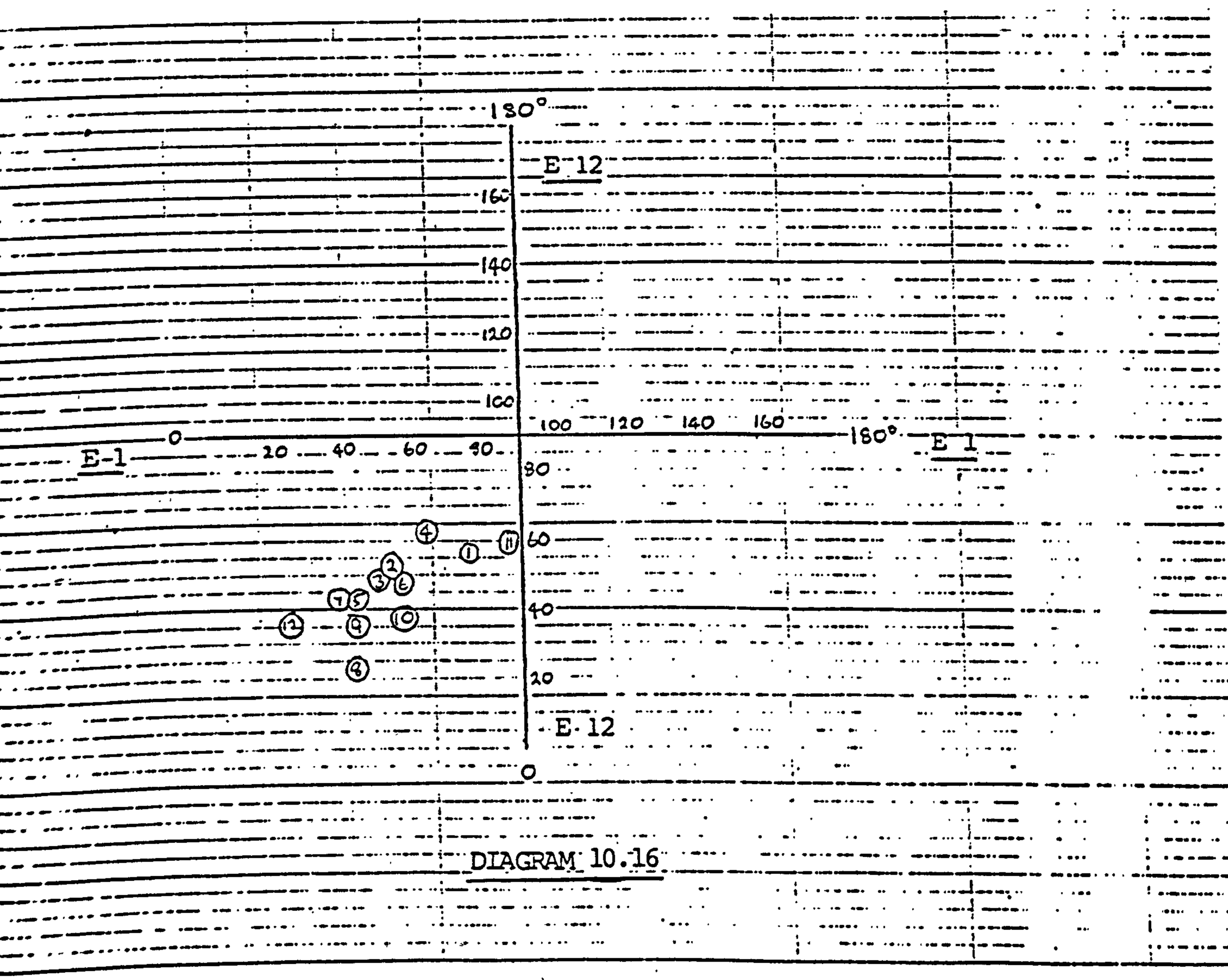



DIAGRAM 10.16

The third and most important reason is that E12 can probably only be understood in relation to other data, in this case, interview data. For instance, manager C (Lansing) (a case study, appendix 10.2a), who is rated low for hard work, displays a highly integrated plot which has been suggested here, is more likely to typify hard working managers. But if one relates this to the interview data, as is done in the study, it is seen that this particular construct grouping is not something that should be quickly ignored because it does not fit, but, in fact, gives rise to a plausible explanation for the difference between the discrepancies in the ratings for hard work. Moreover, the pattern alone is not enough. One also needs to take account of, for instance, the kind of constructs a manager displays.

What would seem to be the case, is that there is enough evidence here to show (and the earlier statistical analaysis can also be cited which pointed to two distinct concepts for E1, present self, and E12, organisation self) that the notion of the organisation self, exists and is of some importance in the way a manager approaches work.

Clearly the concept would need a greater degree of exploration to become highly useful in an organisational setting. The argument here is that there is enough evidence to suggest that it is important enough to be worth pursuing. Even so, some aspects of the concept can be distinguished from the study.

The first point, and perhaps the most important one, is that the organisation self does seem to be something more than just a feeling of being 'misunderstood' by one's boss. If an E12 discrepancy was merely a feeling of misperception on the part of one's boss it would not seem to add much to what is known already. Clearly 'perception' plays a large part in the notion, but E12 seems to be a generalised and possibly integrated concept.

The evidence that the organisation self is a generalised, single concept, comes from the case studies, which suggest that some managers tend to see all their constructs in relation to the organisation self

as low, medium, or highly distant. This is true with some managers even where constructs are unrelated in their own mind, which would seem to suggest that although they do not themselves associate two constructs together, they, nevertheless, see them as part of a generalised self image.

This organisation image can either relate closely to our present image, or it can be somewhat divorced from it. Where it is close, there is a tendency for managers to be more hard working and possibly effective, although there are exceptions to this. Where it is somewhat distant from the present image, the tendency is for managers to be less hard working and possibly less effective.

It was suggested above that the organisation self is an integrated concept because concepts are presented by some managers as either generally high, medium or low. What then of the six managers whose plots (Diagrams 10.7 to 10.12) show their constructs to be less integrated? The argument here is that the organisation self is a generalised image, and the lack of integration may be a cause of difficulties. These are the managers who are less hard working, and it would seem plausible to suggest that based on this, that where one feels one portrays aspects of oneself in different ways, then there may be problems.

This does not mean that, necessarily, there will be problems with a manager who feel he fails to present, say, an impression of being thorough, or intellectual, or sociable. It depends on whether these constructs are part of his self image, and if they are not, and are therefore not important to him, and also not important to the organisation, there are no difficulties. Yet on the other hand, if he thinks he fails to portray even something as possibly unusual, in a work setting, as sexual attractiveness, or a man of repartee, and it is important to him, there may be difficulties. Such difficulties may be further compounded by the degree to which the organisation thinks they are important.

Finally, and related to the last point, is that it would seem that managers with particularly discrepant organisation images, also, not very surprisingly, tend not to identify with the manager responsible for their progress in the organisation. In the case studies, only one manager with an E12 abnormality had a short distance for E1/E3, manager E. The rest had the following distances for E1/E3; manager P .849, A .851, W .722, AD .817, AB .892, X .739, R .807. While it might not seem unusual that managers who feel they portray a poor self image to a significant organisation other, do not identify either with that individual, it is, perhaps, of greater importance than is sometimes assumed. It indicates, particularly, possible ways of improving the manager's organisation image and possibly his performance, as pointed out earlier in the case studies.

# Conclusions

# CHAPTER 11

# DISCUSSION AND CONCLUSIONS

The objectives of this chapter are to highlight the significant findings of the study and to point to possible areas of research in the future.

## The Self Concept

The major contribution of this research is in the identification and exploration of the composition and nature of the self concept within a work/field setting. The second contribution is the investigation of the relationship between the self concept and motivation among managers. While the notion of self has long been explored in different disciplines, it has played little part in cognitive explanations of motivation. Moreover, much of the literature concerned with self has tended to centre on clinical investigations (often of 'abnormality'), philosophical self reflection, or theoretical discourse. This study is one of the few empirical investigations of the self concept in a work environment, and while considered to fall within the area of cognitive theory, the findings may have implications for other disciplines.

It is worth emphasising the nature of this field setting; manufacturing organisations in a state of contraction. The arguments outlined here concern the self concept and motivation, only in that setting. The findings of the study are probably generalisable to other environments, but further research would have to establish this. Perhaps this study might encourage more research to be undertaken into aspects of the self concept in other work settings, and also, possibly, with other types of workers.

Relationship with Previous Literature

The notion of 'self' is not new, nor has it been ignored in all motivation models. The literature on motivation is riddled with the concept of self image. But while acknowledgement is often made of the notion of self, it tends to be peripheral to the main thrust of the argument or theory. Lawler's (1973) extension of the Porter and Lawler (1968) model, for instance, includes self esteem, which Lawler sees as a relatively stable characteristic that reflects the generalised perceptions of competence across all tasks. But the concept is added almost as if it is an afterthought and it remains vague.

The notion of self does play a part in equity theory in relation to attitude change. But while Adams (1965) later made modifications to equity theory to incorporate the notion of self concept, the concept still seems to be accepted reluctantly in the area generally.

The notion of self concept is not entirely divorced from the work orientation approach either. In relation to the Social Action approach, clashes between the individual's non work values and those of the organisation may cause role strain. The way those inconsistencies are handled affects the problem of formation, change and management of self identity. Additionally, within the area of Symbolic Interactionism, the notion of self plays an important part. Indeed, the self is considered in a number of sociological writings, including the work of Mead (1934).

It is possible to find the notion of self referred to in the literature of many disciplines. However, within the literature that is considered to be particularly related to the orientation of this thesis, the area where self plays the most central role is in the more psychological domain of Rokeach's (1973) assessment of values. His argument is that, as self conceptions are activated in virtually every situation a person may find himself in, an individual's performance in every situation is therefore more or less routinely judged for its bearing on self conceptions. It is particularly important in

Rokeach's assessment of change. His theory of change is one of cognitive dissonance. But he sees inconsistency which generates a process of change, not as inconsistency between any two cognitions, but between cognitions about oneself and cognitions about one's total performance. His argument is that it is what one's perceived performance in a given situation implies about self conceptions that is crucial in determining whether a contradiction will be effectively experienced.

Current research fits into the trend of the argument above. It, too, maintains that inconsistencies between how an individual sees himself and his view of his total performance has important consequences. Indeed, to advocate any cognitive theory, including expectancy theory, without taking the self concept into account would seem to be a drawback. It seems sterile to discuss things like outcomes or rewards without thinking of the implications that rewards may have for the way the individual thinks about himself. Of course, as the explanatory framework outlined earlier (Chapter 6) acknowledged, such things as material rewards may not only be valued in self image terms. But equally, it would seem unwise not to accept that almost all rewards may have self image implications, including those such as the relatively small reductions in the meal benefits that were experienced by the engineers at Massey-Ferguson, to the complaints about pay from the younger finance managers (see appendix 6.2). Indeed, pay itself is a good general example of the implication rewards may have for the self concept. Not only is it considered to be a sensitive subject to research, but pay seems to be rarely discussed openly amongst managers, and its implications for the self worth of the individual must have something to do with this. Pay is a social currency, used to communicate 'success' to people from different companies and disciplines and different walks of life. Even though one may be reluctant to take part in such a social game, to tell people that one earns £5,000 p.a. communicates something vastly different about one as a person, than if one said one earned £15,000, or even £10,000.

The fact that the self concept and the self in terms of the psychological processes controlling actions, have not been well integrated

stems partly from the point made earlier (Chapter 6) by Lalljee et al (1976) that these two notions of self have been seen as two separate areas, with different research traditions and philosophies underlying them. Within the area of process motivation models a number of possible reasons may account for this. It might be argued that in process theory the self image link is already there without the need to specify the self in a theoretical model. This link is valency, or the value an individual places on rewards. To some extent this is true, but valency alone is somewhat sterile. To omit any kind of reasoning as to why we might value some rewards and not others, especially if some have implications for self worth, while others may not, leaves any process model limited.

Another reason why the notion of the self concept has not been more centrally integrated into such theory may be due to the assumption that cognitive theory is already related to self, and making separate distinctions about self concept is unnecessary. Of course, it may also be that these two perspectives of self are not, in fact, notions that can be integrated. Certainly, it would seem to be the case that they cannot be easily integrated. But the evidence of this thesis and the comments above suggest that the notions can and should be combined. Moreover, the literature has begun to lean this way as well. There have been a number of recent trends (by such as Porter and Lawler) towards acknowledging self image in process theory. But it is still often left dangling somewhere in the page margin of the diagrammatic representation of models, and a reason for this may be that self image is not something that can be easily identified and measured. There are a number of instruments that purport to do this (see, for instance, Robinson and Shaver 1973), but the notion is unlikely to be straightforwardly identified whatever the instrument used. Nevertheless, the repertory grid instrument would seem to go some way towards overcoming the problem of identifying and exploring the self concept in a field setting. One might argue that a major theoretical development in this area should be towards attempting to integrate the different traditional psychological approaches to the notion of self and the repertory grid provides a vehicle for doing that.

## Major Findings

Certainly, the use of repertory grid in this study has made possible the exploration of the self concept within the environment of work, which has given rise to a number of important findings. The major findings and conclusions from the research are briefly summarised below.

The research indicates that a manager's self concept should be viewed as having a multiple rater than unitary nature. The study also shows that the proximity or distance of different self aspects, particularly the 'present' and 'organisation' self, is related to a tendency to work hard or not. Moreover, the research highlights the concept of organisation esteem, which may be a more useful concept for understanding motivation than self esteem.

In addition, the results of the study indicate that the coincidence of constructs, or similarity of world view, between boss and subordinate has a strong relationship with motivation.

The research also shows that a manager's work values/constructs and their constitution in relation to the self concept have a bearing on motivation. Knowledge of these values helps not only in understanding motivation, but also in understanding manager development. These findings are explored in more detail in the rest of the chapter.

## Different Self Aspects

In this study the repertory grid has assisted in exploring the possibility of the self being more than a unitary notion. It was noted in Chapter 6 that different aspects of self have long been identified, but the notion of a unitary self has not been abandoned by some authors. Indeed, it was mentioned earlier that Porter and Lawler's (1968) concept of a self image is a unitary notion. The evidence from this thesis suggests that within the work context, viewing the self

concept as a unitary aspect is too limited. But the evidence would point not just to a binary or tertiary notion of self, but more to the notion of a multiple self concept. In this thesis, three notions of self, present, ideal and organisation selves, were identified as being particulary important. But this does not dismiss, for instance, the notion of a past concept of self, or Norris's (1976) more generalised social self, which may not only be different conceptualisations of self, but may also have different, although nevertheless important, connections with work behaviour.

How different aspects of self relate to each other will have different implications for outward behaviour. This thesis suggests that one important aspect of the self is linked particularly to work motivation. This is the organisation self (E12), a notion concerned with how a manager thinks he is perceived in terms of his work constructs, or values, by the most significant organisational other. The data indicate that there is a link between those managers who see great dissimilarity between their present selves and their organisation selves (low on organisation self esteem) and the tendency to work less hard, in comparison with managers high on organisation esteem. Moreover, not only is this present/organisation self integration or lack of it, of significance, also important is the composition of the organisation self and the way constructs are held within an individual's organisation self construct system. Managers who see wide discrepancies between how their organisation self constructs are portrayed, are either seen as problematic by organisational assessors, or they themselves feel they have work problems.

The notion of an organisation self seems to have some general acceptability in principle, as many writers acknowledge that the way we feel we display ourselves to the outside world is an important aspect of the individual. As noted above, it would seem to fit in particularly well with Rokeach's theoretical outline, that contradictions between cognitions related to the self will have consequences for the individual. However, the trouble is that the way in which these contradictions may affect the individual is not straightforward. It

is fairly easy to maintain, as Rokeach does, that contradictions between two cognitions will have motivating consequences, but then dodge the difficulties by the catch all phrase that an inconsistency between any two cognitions may be motivating for some and not for others, without specifying very clearly how this might be so. The evidence here suggests that contradictions between present and organisation self aspects are, in fact, related not to motivation, but demotivation. A discrepancy between how an individual perceives himself and how he feels he is seen may cause psychological discomfort, but would not necessarily, in this case, seem to lead to attempts to change one's self projection. The notion of cognitive contradiction would seem to be important, but the relationship between this and motivation would seem to be complex, and a comprehensive assessment of this relationship needs more research.

The emphasis on the organisation self does not mean that other aspects of self used in this research are any the less important, potentially. One of these was past self, which was identified by the respondents as distinct from other aspects of self. It was left out of the analysis because different individuals focussed on different times in their past, and any attempt at comparison would be meaningless. But it seems to be a separate aspect of self that might be studied further. The other self used in the study was, of course, ideal self. However, while it played a central part in the analysis, it would not seem to be important to understanding motivation, or rather a tendency to work hard. In one sense this is of some significance. The assumption from Rokeach's analysis is that discrepancies between cognitions are motivational. Moreover, in Chapter 6, Hilgard et al (1971) were cited as arguing that the ideal self was something against which a person judged his conduct, and that the ideal and judgements combine to give self perception a central place in social motivation. However, the evidence from this thesis suggests that while on the surface this might be a plausible proposition, such a notion is hardly straightforward. Under this argument one would expect to find that large distances between present self (E1) and ideal self (E10) would be motivating, especially if the distance between the construct 'hard

working' on each of these self elements, was large. But there is nothing conclusive about this. Just because our present selves are a long way from what we would ideally like them to be, does not necessarily imply a striving to close the gap. Moreover, a close E1/E10 distance, again, for instance, in relation to constructs like hard working, does not necessarily mean complacency.

## Self Esteem

Researchers such as Norris (1976) label this distance between E1 and E10, as self esteem. This term was also used in this study. A long distance between E1 and E10 was considered to indicate that an individual was low on self esteem. It is frequently the notion of 'self esteem', or 'self worth', that plays a part in the theoretical conjecture of others. This research suggests that in relation to the tendency to work hard, self esteem is less important in a work context than organisation esteem. However, this does not mean that self esteem is of no significance, however. The relationship between E1 and E10 may well be relevant, but the relationship between these two particular items may not necessarily measure self esteem alone, or it may be one form of self esteem and there may be another, or others. For instance, it seems quite plausible to suggest that one can ideally be a long way from how one presently is on a particular item and not be low on self esteem. For example, an individual may value a Christian way of life, but may also be a long way from the ideal, which presumably is sainthood. As they may feel they are getting a bit better each day they may not feel frustrated or low on self esteem. What might make them low on self esteem is not the distance between ideal and present selves, but whether they were trying to make that difference up, or whether they thought they had defects that prevented them from doing so. For instance, someone who valued a Christian way of life, but who was also a kleptomaniac might fall into this category. Thus, the distance alone between present and ideal selves may not be as important, as whether that distance can be reduced, or, additionally, how that distance is viewed in relation to others.

Overall, 'self esteem' is a variable that needs exploring further. If self esteem is seen in Roth's (1976) terms (cited in Chapter 6) as favourable or unfavourable self perception, then relationships between present and ideal selves, in terms of the repertory grid, might be appropriate in investigating such a perception. But this would seem to be less relevant, at least in this context, to understanding motivation. It may be that there is another aspect of self that would provide the key to explaining motivation in terms of self discrepancy, such as an achieving self in similar vein to McClelland's (1953) need for achievement, noted in Chapter 2. Another possibility is that, in some cases, it might be the converse of this; a fear of failure. Rather than a positive desire to achieve, motivation for some, may be the product of a negative desire not to fail, and be expressed through something like a 'striving' self.

## The Self and Authority Figures

The second area highlighted by the repertory grid which is seen to be of significance in relation to motivation, is an individual's feeling of empathy with his/her boss or boss's boss. That is, the degree to which an individual sees his/her constructs as also being found in his/her boss or boss's boss. The evidence indicates that there is quite a strong link between someone who has a tendency to work hard and the belief that his/her boss or boss's boss have similar outlooks in construct terms to his/her present self.

As noted in Chapter 8, while the possible motivational influence of one's boss or boss's boss is hardly a revelation, the study identifies a particular and important aspect of this relationship. This is that it may not merely be notions like leadership qualities, or personality, that are motivationally important, but the belief on behalf of the subordinate manager that his boss's constructs/values, or world view, is similar to his own. This would seem to provide some empirical support for Brown's (1976) general argument that motivation and organisational conflict may be a product of the coincidence or dif-

ference in values of superiors and subordinates. She maintains that what stops or limits communication often is not personality differences but basic value differences. Certainly, differences in perceptions of the work constructs that are evident in superiors has, at least, a link with a tendency to work hard or not. Indeed, in the table showing external hard work ratings, and the various element and construct relationships (Table 8.19, Chapter 8), the only unbroken trend towards increasing distance between items as managers were less hard working, was in the relationship between present self (E1) and authority figures (E2, E3). That is, there was a clear pattern of increasing distance (i.e. increasing dissimilarity) between present self and the supervisor elements, the less hard working that managers were rated.

It is not possible to identify causality from the data, but this clearly indicates not just that boss/subordinate relationships are related to motivation, but specifies the kind of relationship that would seem to be important.

Values and Self Aspects

In addition to the composition of self, and the empathy between self and authority figures, the third area of prime importance in relation to motivation that the repertory grid highlights is concerned with the composition of aspects of the self. The self aspects have been formulated in terms of Kelly's notion of constructs, but the argument of the thesis has been that constructs and values, if not interchangeable notions, are very similar notions, and the definitions of both values and constructs support this. Moreover, both are seen as having behavioural consequences, and the concentration on such concepts was important for this reason also.

The repertory grid instrument was designed in order to produce particular types of constructs or values. These were related particularly to work and to the self. These self concept values, as they

were called in Chapter 6, were seen as being possible predictors of work behaviour, but were also seen as a possible link betwen the psychological orientation of motivation theories and the broader societal approaches of the work orientation advocates. Unfortunately, the limitations of the study, partly resulting from the time constraint on interviews in order to accomodate the repertory grid instrument itself, prevent many concrete conclusions being drawn about the generation, stability or modification of such values or constructs. There is, of course, some degree of societal influence on their generation, and it would seem highly unlikely that all one's work constructs and values are developed within the work context. The difficulty a researcher has is establishing what effect various influences might have. The evidence from this current research implies that the emphasis or priority concerning the importance of some constructs will change as a result of workplace influences, but it would seem that the organisation self and the constructs composing this are essentially generated within the work environment. This must also be the case, although not necessarily the whole case, in relation to the individual's assessment of the values of authority figures, E1 and E2. In view of this, and in view of the comments made (noted in Chapter 6) by such as Mead (1934) and Cooley (1956) about self projection and the influence of significant others on one's self perception, then it would seem fairly likely that essentially work generated notions such as organisation self, E12, and the perceived constructs of significant authority others, E2 and E3, will influence the possibly more socially generated constructs or values composing the present and ideal self. The degree of this influence and the extent of stability or change can clearly only be assesssed with more research.

Nevertheless, the thesis does indicate that the kind of constructs that are held by managers and their various combinations have a link with work behaviour, in this case, the tendency to work hard or not. There is a relationship between the emphasis given to the construct 'hard work' in relation to the present and organisation self construct systems, and a tendency towards that general behaviour. There is also

some link between the general nature of the constructs held and the tendency towards hard work. Specifically this was that an individual who held constructs which were categorised as positive work values, and/or personal development values, and/or also held hard work as important in their construct system, was more likely to be harder working than an individual who held more passive constructs. The problems of causality remain, but there are fairly distinct mental patterns that in general, either cause or are caused by an orientation towards a particular approach to work. One of the keys to motivation would seem to be related to the creation of those mental patterns.

It is difficult to say from the study whether other values/constructs, or construct patterns, emphasised by individuals are related to particular approaches to work. Some of the engineers interviewed in the pilot study emphasised the notion of thoroughness, rather than things like speed and efficiency in work output. Some marketing and sales managers at Sandvik emphasised 'people' constructs. But many of the managers failed to emphasise what might be thought of as values/constructs typical of the function they worked in.

A slight digression, but related to the orientation of the study, is that only one manager elicited the construct of uncertainty, and none elicited insecurity. The element, past self, was included specifically to see if such a construct might be elicited from each manager. Managers were asked to see past self in terms of how they perceived themselves to be two years ago, which was a time roughly a few months, in both Sandvik and Lansing, before major redundancies occurred. That all but one did not elicit such a construct would not seem to be unusual from what was said in the interviews. For many, job insecurity or uncertainty was not something they felt, and in most cases, those who did feel it were not greatly worried by it.

When individuals with generally few prospects outside an organisation that is contracting, say that insecurity is not something of great salience to them, although they are aware of it, one first looks to one's instrument, initially the interview, to see if it has identified

properly the area of concern. When a second instrument fails to do this, the repertory grid, one starts putting forward arguments that suggest that these managers may not be typical. For instance, the managers at Lansing were particularly long serving employees. When one goes back over all the interviews and finds that uncertainty, (which, I emphasise again, is something most managers are aware of) is not a fundamental worry for many of the managers, one then puts forward arguments like resilience, not facing reality, putting on a brave face etc, to explain this. One is almost reluctant to believe that this is really how they feel, in view of some researchers' emphasis on the need for security, and the popular media which almost creates a research climate of an expectancy of uncertainty. However, Poole et al (1981) also make reference to this complacency. An explanation for this may be related to the constructs individuals hold. The assumption earlier was that if one greatly feels job insecurity, or is greatly uncertain about the future then it would reveal itself in the constructs elicited. But it may be that uncertainty has no fundamental meaning for these managers. It may not be, with some individuals at least, that because insecurity is not revealed in their construct system therefore they do not feel insecure, but that they cannot, in the sense that as security/insecurity is not an already established construct it may not be possible to integrate the notion of insecurity. This is not so surprising if constructs or values do take time to change and, moreover, it would seem rather limited to assume that managers should feel a fundamental insecurity merely because they now find themselves in an uncertain environment.

The argument, which is tied to the managers' general lack of uncertainty above, is that if 'in plant' factors do change certain values they may do so only gradually. Of course, only a thorough longitudinal study would bear this out, but it may not be whether 'in' or 'out' plant factors are the more important, but the time taken for either to reorientate individuals. It is, perhaps, in the area of construct development, change and salience that a lot of research strides might be made.

Repertory Grid and Work Orientation

Nevertheless, the repertory grid approach has a number of additional aspects which may help in looking at work orientation. In the first place, grid technique accommodates the arguments of Russell (1980), that orientations, which should be derived from empirical investigation, should be identified by the respondent, and not by the researcher defining the situation and prejudging what he believes to be important to the respondent. Second, what was established in the study was a number of groups of constructs, the combination of which could have particular consequences for work behaviour. While the source of these constructs and how they are sustained were not investigated, these empirically generated constructs would seem to be as good a starting point to explore work orientations amongst managers, from a theoretical point of view, as the categorisations of such as Goldthorpe et al (1968), Aldefer (1969), or Bennett (1978).

An additional, but no less important point, is that the potential practical value of this research and construct categorisation, may be greater than the categories of the writers named above. The evidence of this study would suggest that what is important to managers in general is something above existence or instrumentality, in terms of their day to day job. Relatedness, or the value placed on communication is hardly a discriminating category, while personal growth also is too vague, and in some cases, as with managers in contracting organisations, it would seem to be far from a primary concern.

Managers do think in terms of 'development' and 'interaction', but the categories that have been produced in this research may indicate more precisely what aspects of 'development' and what aspects of 'interaction' a manager places greater value on. Knowing what these are, may indicate, in broad terms, if not likely behaviour, then possible job areas of most suitability to the manager, or possible areas of development. At least in relation to hard work, the general constructs a manager holds, would seem to imply certain behavioural consequences, and it would seem possible, with greater work on the

categories, that there may be other identifiable consequences as a result of holding particular groups of work constructs.

The second and more immediate practical implication is not necessarily what categorisations can be made of such constructs or values, but whether the constructs an individual holds as being important are seen to be accurately displayed by the individual to the most significant organisational other. The research suggests that individuals who do not feel they portray accurately important constructs, either have work problems themselves, or the organisation feels they have. In these circumstances one would not, necessarily, be attempting to encourage (probably difficult) value change, but exploring the reasons why the individual feels misperceived. In most cases (except for Mr. S, Sandvik) it is not that the individual feels he has the wrong values, but that these are not portrayed very well. Counselling, skill training, better feedback, better self projection, changing working practices, better communication between boss and subordinate in general, seem practical and possible solutions to reducing this discrepancy.

However, despite the usefulness of repertory grid in this research there are particular drawbacks to its use in a work environment. The first is the time taken to administer it, which can easily extend to 1½ hours. In a environment where managers are under pressure, the time allowed to the researcher to administer the instrument may be very reluctantly given. The problems are increased if the researcher also wishes to use other instruments, such as an interview schedule. The second is the problem of feedback. In order to get managers interested in completing a repertory grid, some form of feedback to them may be essential. Because of the complexities of repertory grid, producing feedback that is easily understood by the respondent can be very time consuming for the researcher. While feedback is important, it would be wise for the researcher not to overcommit himself/herself on respondent feedback.

## Self Concept Motivation

In summary, the research has gone some way to outlining some of the major psychological patterns that are associated with hard work. It has highlighted the notion of the multiple self and that particular aspects of this self and the relationship between self elements have a particular bearing on hard work. It has shown that the composition of the different selves in terms of work constructs or values are also linked to motivation. Additionally, it has demonstrated the kind of link between the self and significant organisational others (that is, a value identification) which has a bearing on motivation. The major findings are illustrated diagramatically in Figure 11.1.

### Summary Framework

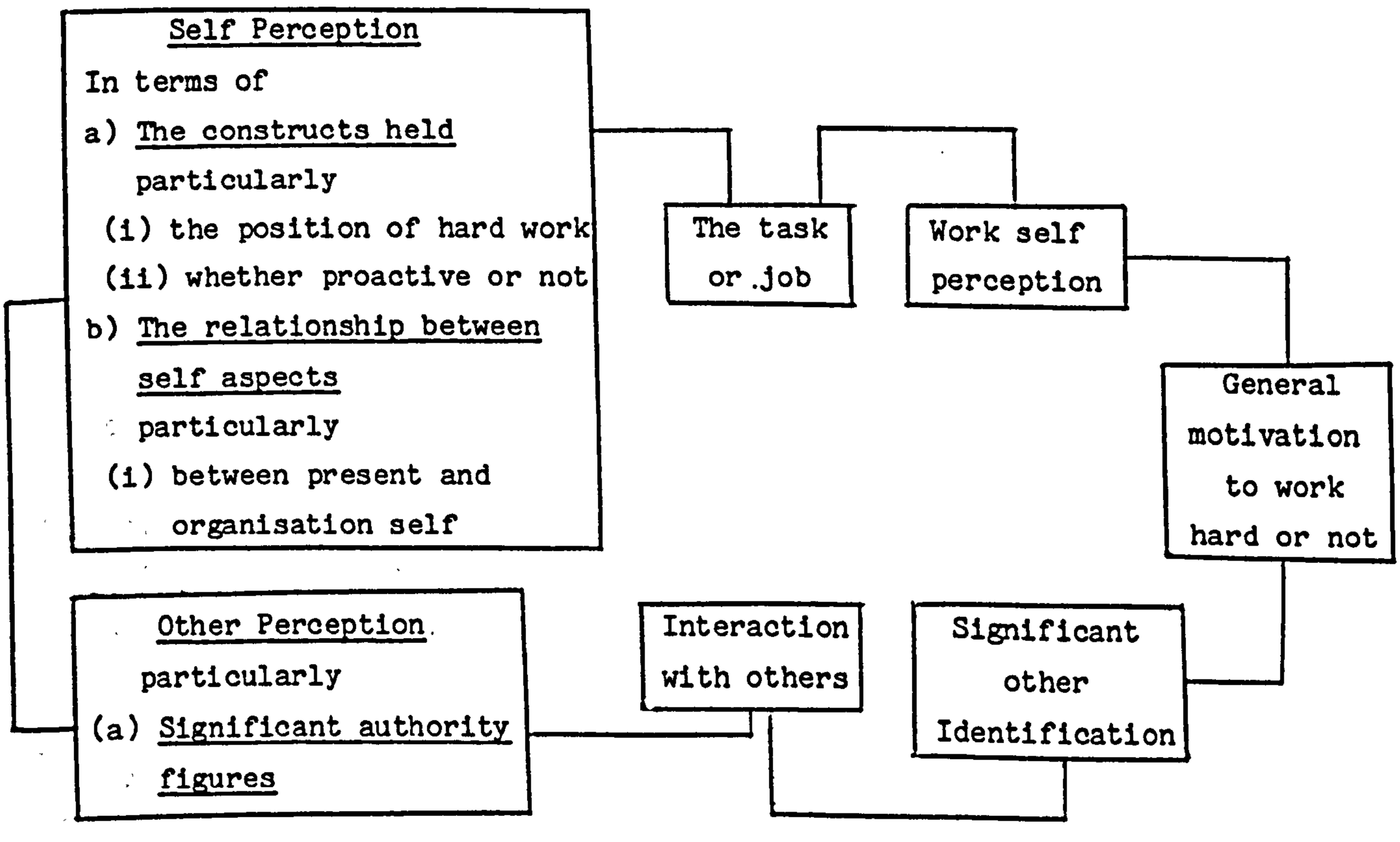



Figure 11.1

Earlier arguments have fitted within the cognitive framework of Rokeach (1973) and Festinger (1957). They have also emphasised the

notion of self in terms of self perception, rather than the notion of self in terms of process, which characterise the motivation models of such as Porter and Lawler. Despite the traditional distinction between the self as perception and the self as process, there is no reason in principle why these two areas cannot be combined. Indeed, the notion of self image has been gradually accomodated into some process motivation models, but it tends to remain peripheral. This thesis would suggest that its role should be much more central and that a better integration of the self concept and self processes is one which could contribute to the theoretical development of motivation.

The first step towards such an integration is suggested in Figure 11.2. As the framework is meant to be exploratory, it is only necessary to include the broad principles derived from the study. The major self aspects that have been identified as important to motivation are,

- the relationship between various self aspects
- the composition of these self aspects
- the relationship between the self and other perceived organisational others

These can be combined with some of the items from the pilot study conclusions to produce Figure 11.2.

This can be elaborated into a broader framework incorporating these items with the rest of the framework produced at the end of Chapter 6. This is a paradigm and only the self aspects noted above have empirical support from this study. But it is important to set the notions of self, developed in the thesis, within a broad framework, and also to tie these in with the framework that has been developed from the literature and the pilot study. The relationships suggested in the framework may also be of use as a starting point for further research.

This final framework sees the individual having a self perception in relation to work, which consists of self image values or constructs, including situational factors (described in Chapter 6), and various self relationships composed of these factors. The individual will not

EXTENDED FRAMEWORK

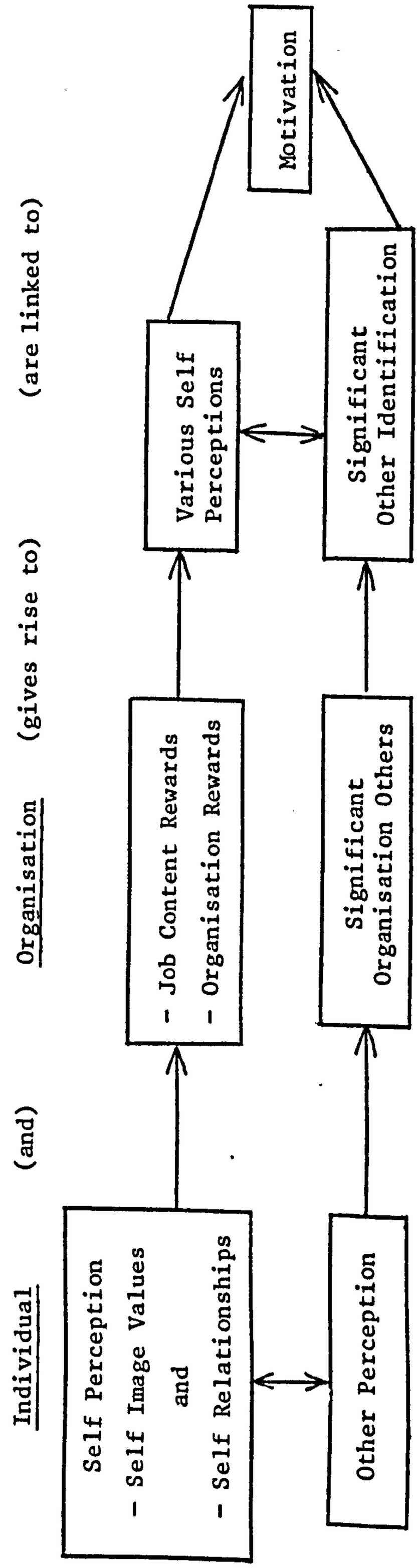



Figure 11.2

have an organisation esteem, (as defined in this study), at this stage, but will have some notions of self esteem. Additionally, the individual will have a predisposition towards the perception of the values of significant others.

In working in an organisation, the individual will come in contact with job content rewards, such as the possibility of fulfilling certain work values, organisation rewards such as pay and promotion, and significant organisation others. These will be evaluated in the light of assessments of equity and organisation uncertainty, and also in terms of the valency of the rewards and expectancy of achieving them.

The interaction of these factors will give rise to a work self perception in terms of, organisation esteem, self esteem, and empathy with significant others. It is suggested that these conditions will be associated with various psychological states, mainly frustration/tension, enthusiasm or satisfaction, which will have consequences for certain types of work behaviour, especially the motivation to work hard. The individual's actual performance, and whether he/she attains rewards or not (outcomes) is seen, as in the previous framework, as having feedback effects. The overall framework is shown digramatically in Figure 11.3.

## FINAL INTEGRATED FRAMEWORK

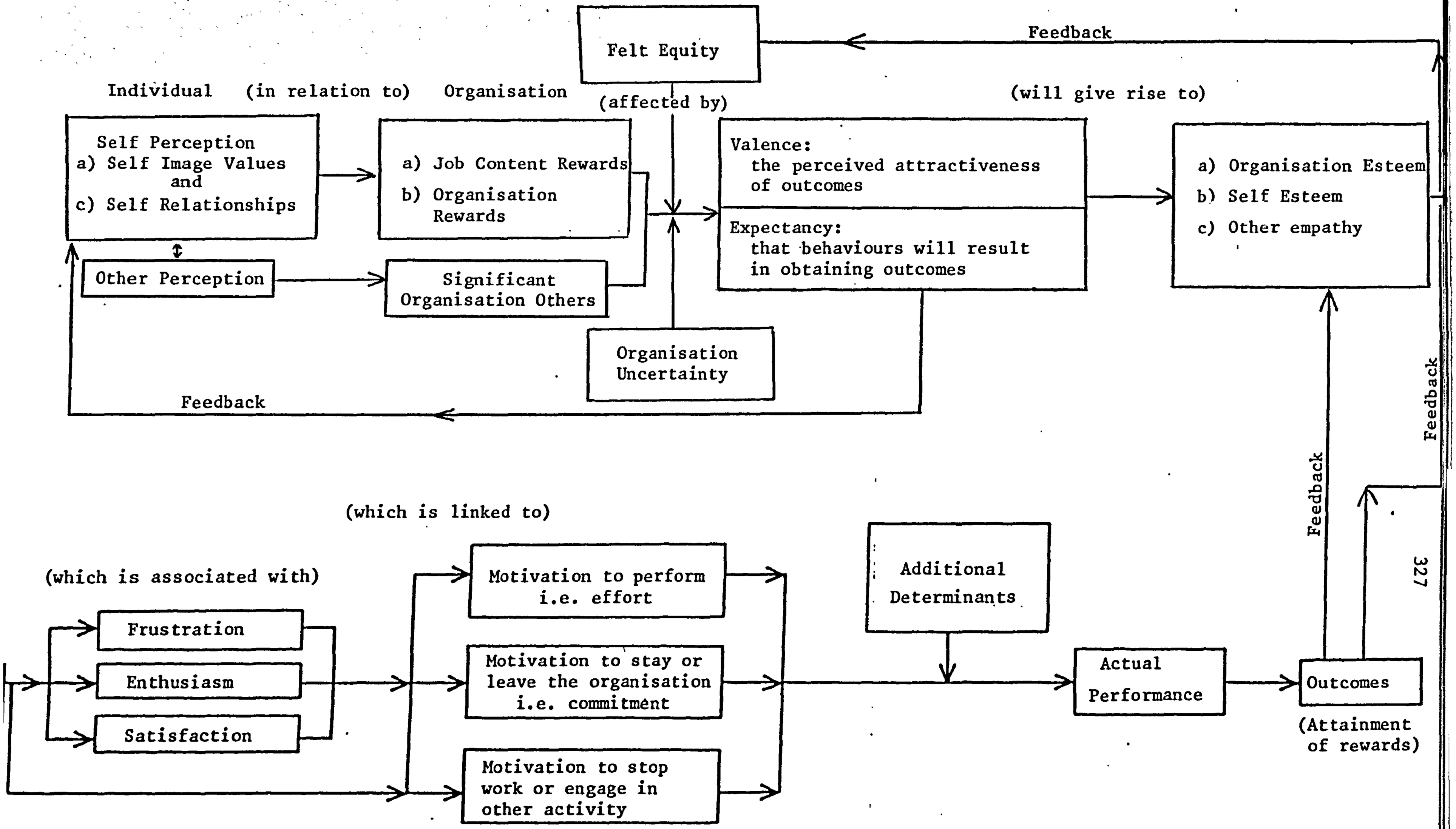



Figure 11.3

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# A STUDY OF THE MOTIVATION OF MANAGERS IN MANUFACTURING ORGANISATIONS IN CONDITIONS OF CONTRACTION

VOLUME II

Supervisor Dr. S. Vinnicombe

April 1984

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# APPENDICES

## APPENDICES (Continued)

# APPENDICES

Question Schedule

How important is pay to you at work. Is it, not important, important, very important, or have you no feelings about it
Can you tell me why it is ni/i/vi/or something you have no feelings about
Can you tell me how much you earn
Are you satisfied with this. Y/N
What would/does make you dissatisfied with your pay
Does pay affect how much effort you put into your work frun day to day Y/N
Does it affect anything else (prompt, like the desire to stay with the company)
Do you receive any fringe benefits Y/N
What are they
How important are they to you at work. Are they ni,i,vi,nf
How important is promotion to you at work. Again is it ni,i,vi,nf
Again, can you tell me why it is ni/i/vi/nf
Do you wish to get much higher than you are now Y/N
How much higher
Do opportunities for promotion affect how much effort you put into your work from day to day Y/N
Do they affect anything else
How important is it that you have a lot of personal contact with people at work. ni/i/vi/nf
Is working on your own analyzing information or problem solving important to you at work. Is it ni/i/vi/nf
Which of these two do you value more, personal contact at work or the chance to work on your own PC/WO
How important is it that you get the opportunity to develop new abilities and skills. ni/i/vi/nf
What would these be
Are there any areas you particularly wish to develop
You may have heard the phrase self actualisation. Does this have any meaning. If so inwhat way
Is status important to you . How important, ni/i/vi/nf
How important is it that you have challenging work to do ni/i/vi/nf
Can you describe what challenging work means to you. What does it involve.
How important is it that your work is interesting ni/i/vi/nf
How important is it that you have a job with variety ni/i/vi/nf
Do you feel that what you do is very significant to the company Y/N. N,does this bother you. Y how important is this to you
Do you ever get a feeling of pride from what you do Y/N. Is it important that you do ni/i/vi/nf
Does it mean anything to you to feel you have done a good job at work Y/N
If Yes, How important is it that you are recognised for doing a good job by others, or is it a personal dtandard. O/IS
Do you feel you're successful at your work Y/N. Why
Do you feel under pressure Y/N . Do you dislike this Y/N
What about freedom in your job.
How important is it that you have freedom to do your work as you think best. ni/i/vi/nf
Are you clear what your work objectives are Y/N
Do you feel they could be more clearly defined Y/N
How often do you see your boss. Not very often, Often, Very Often. Like...
How important is it that your ideas are listened to. ni/i/vi/nf. Are they Y/N
Would ypu like more or less involvement from your boss, or do you think his involvement is adequate M/L/A
How important is it that you are in a position where you can organise and control others. ni/i/vi/nf

How important is job security to you. ni/i/vi/nf
Do you feel your own job is secure Y/N
Does the financial state of the company worry you Y/N
Does it have any effect on whether you work hard or not Y/N . If N, why not. If Y, in what way
Do you think it affects how you feel towards work Y/N
Does it prompt you to look for work in another company Y/N
Could you find work outside if you wished Y/N
Have you tried to find work outside Y/N
How much effort do you put in to your work. For instance, is it about what you think is required, above what you think is required, not possible to work harder, or below requirements. R/AR/100%/BR
What about in relation to other managers . Is it more or less than the majority or about average M/L/A
Can you say which of the things we have mentioned affect whether you work hard or not.
If you could slightly change any one thing what would it be
Which of the things we have mentioned affect whether you change our job.

# APPENDIX 6.2

## PILOT STUDY INTERVIEW DATA

# APPENDIX 6.2

# PILOT INTERVIEW DATA

## Introduction

The question schedule (appendix 6.1) was used for the pilot study and main study (appendix 7.1) interviews. The interview data was also gathered in a similar way for both studies.

The main technique used in recording the data was to take written notes. These notes were written up under three headings; Background and Job, Values and Frustrations, and Feelings About the Organisation and Recession.

With the data in this form, it was then categorised using a form of content analysis. This process involved a number of stages. The first stage was to put the data from the interviews under very broad headings so that some beginning could be made to compare what each manager had said. These headings were; background, job and effort, likes and motivations, frustrations, other personal characteristics, feelings about the company, and feelings about recession. This basically involved writing out in a shorthand form almost everything that was contained in the original interview write-ups.

For Chloride and Chubb, as the material was limited, some comparison could be made between the managers from the data in this state. While these categories have not been used in the text, they acted as a basis from which to analyse the material and draw conclusions. With Massey, there was much more data as a result of more precise questioning, and it was necessary to split the data up further having first put it into the above categories. The headings that were then used were; background, pay, promotion, job content, feedback and appraisal, auto-

nomy and objectives, other frustrations, redundancy, rationalisation, insecurity, company's future, top amangement style, and other factors.

These categories, to some extent, reflect the general areas of questioning. The headings under which the analysis has been made of the Massey data in the later section, in general, reflect these. The end result has meant that some of the 'richness' of the data has been lost in the process, but it has made it possible to manage quite a large amount of data and make comments on it.

For each of the three companies following, there are two sections; one giving some background information on the company and industry, and the other, the analysis or conclusions from the interviews.

## A) CHUBB

### Introduction

The firm has its roots in the early 19th Century when Jeremiah Chubb won a Government prize for inventing the first lock that could only be opened with its own key. He founded the company in 1818 which has grown to become one of the most famous lock and safe making firms in the world.

The Chubb and Sons Lock and Safe Company at Wolverhampton, which is the subject of this study, is one of the two main companies, along with Josiah Parkes, that comprise the Chubb group. Along with a number of smaller subsidiaries, the group manufactures safes and strongrooms, night safes, safe deposit installations and lock and master key systems. Along with companies such as Yale, Chubb has played a central role in an industry that has a long tradition. It has been a profitable industry, and Chubb has a reputation within it for high quality products.

### Present Position

The security industry is still one of the few growth industries, but like almost all of manufacturing industry, it has been hit, to some extent, by the recession, and some of the smaller companies in the industry are in considerable financial difficulty. Moreover, as the industry is still seen to have some growth potential, companies in other areas have seen it as an area for diversification, and it has been penetrated by such firms as Hoover, the washing machine manufacturer. Thus, the industry has not only been hit by recession, but also by additional competition.

The industry has not been hit as hard as other industries, however. Nevertheless, while not making a loss, Chubb has suffered quite substantially, relative to the company's past experiences. Profit in

the 1979 financial year was £15.26m, but slumped to £6.48m in 1981. Profit increased to £9.37m in 1982 due to success in export markets. However, with no growth in the UK market and increasing competition abroad, especially in areas such as the Middle East where Chubb faced little competition in the past, the downturn is far from over, and the company, while not threatened by bankruptcy, still faces some considerable financial pressure. Moreover, the possibility of further redundancy has not been denied by the group. Since 1979, 1,160 have been made redundant in the group. Chubb at Wolverhampton has experienced two waves of redundancy, the most recent in April (1982) when 70 lost their jobs, and the company now has 1,100 employees. Many of the managers interviewed thought there might be further redundancies this year.

Thus, although the company is not in desperate financial difficulty, the future is far from certain and orders are short in some parts of the works. Moreover, this and the redundancies, has to be seen in relation to the context of the company. Up until 1979 there had never been any financial pressure on the company, and redundancy was not even a remote possibility. The company had been very profitable and pay, which was index linked, and working conditions were above average for the area. A traditional, paternalistic, family firm, the company prided itself on the way it loked after its personnel, with, for instance, a full-time welfare officer responsible for employee problems including those of its retired workers. Labout turnover in the company was low, with many long serving employees, and up until 1979 a waiting list of people wanting to work for the company. Although unionised, Chubb had experienced very little industrial unrest. Up until the interviews, this was still the case, but the workforce, according to the personnel manager, was now feeling some uncertainty, alhough he felt this affected the shopfloor more than management.

While Chubb was in an industry that had not on the whole experienced much rapid change (Chubb itself had not introduced one new product in six years), there had been some changes at Chubb, especially in relation to the management structure. The Works Director, since his arri-

val in 1970, had adopted a policy of bringing middle and some senior managers into the company from outside. These managers were not only from outside the company, but also from outside the industry as well, coming from companies like Alfred Herbert. These managers tended to be younger men (30-40 years old) than was usually found at Chubb, and they also had less loyalty to the company than the more traditional managers, usually moving on from Chubb after about 4 or 5 years. The company still adopted a policy of recruiting managers from the shopfloor and junior staff positions, but by 1982 the more middle and senior positions were dominated by this younger breed of managers with broader experience of mechanical engineering than the lock industry alone. Quite a number of older managers remained, but they tended to occupy the junior management positions.

Thus, the company had a fairly distinct split between two types of manager. One consequence of this was that the company had very little management development expertise or enthusiasm. It was considered that the older managers did not need it, and the younger managers would move elsewhere to obtain broader experience. This regular influx of new managers was considered to be a way of enthusing a fairly staid company with new ideas and energy.

## Interviews

12 managers were interviewed from a cross section of the departments that were on the Wolverhampton site. An organisation chart, showing the function and the hierarchical relationship of each manager to each other is produced in diagram 1.

## CHUDD ORGANISATION STRUCTURE SHOWING APPROXIMATE POSITIONS IN THE HIERARCHY OF THOSE INTERVIEWED

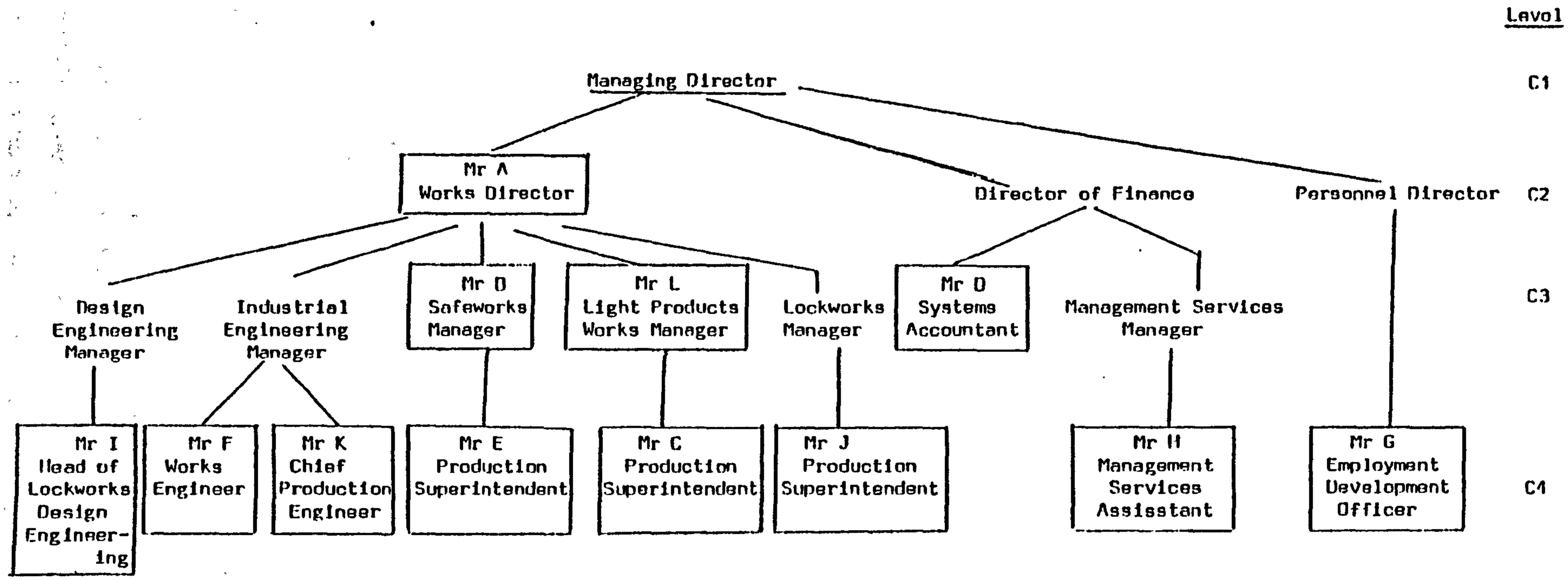



DIAGRAM 1

## Analysis

Attempts at analysis at this early stage of the research are frought with difficulty. The most obvious problems are the small number of managers interviewed and the lack of consistency in the way data was collected in these initial interviews. Conclusions drawn from these, of course, are at best, tentative, but the aim here was to point to possible directions that the research might take rather than stating certainties, and the analysis should be seen in this light.

The data that has been generated by the interviews is interesting for two reasons. The first and possibly most pleasing reason when pursuing activites of this kind, is that there does seem to be some, although crude, patterns. The second, but none the less important reason, is the contradictions and anomalies that are also evident.

Let us start with one of the most interesting contradictions and also the factors that many of the more strident managers and commentators believe to be the main motivators; those of pay and promotion. Pay, of course, is often lauded as the universal motivational panacea, and in one sense it is. None of the managers would say that pay was of no importance, or not always a factor when considering a new job, as, of course, it provides a livelihood. But there is a wide discrepancy between this and between pay being an incentive to put forward more effort at work. Out of the 12 managers, 7 said it was not the prime motivator, while 5 said it was. This raises two points. For those 7 it might be that pay is a hygiene factor in the Herzbergian sense, and there may be a limit below which a drop in pay will cause dissatisfaction. But for these 7 managers it is not a day to day motivator. Yet, on the other hand, there are five managers who seem to contradict Herzberg's theory and see pay as a positive incentive. What may be important at Chubb, is that Chubb pays above average wage rates and this may remove pay from the consciousness of some of the seven managers not overtly concerned with pay. Moroever, it would not seem, at least amongst these managers, that there is necessarily a focus on pay as a result of certain events, as critics of the Work Orientation approach such as Daniel would argue. With some blue collar workers

pay may become important at certain times of the year, for instance, during pay negotiations. At Chubb, pay negotiations were being discussed while I was conducting the interviews, and it was expected that none, or at most a 2-3% increase would be offered. None of the managers seemed to focus on pay as a result of the current negotiations, or comment particularly on pay, even though index linking had been ended.

Promotion seems to be less of a clear cut issue amongst the managers. Few actually seem to want promotion for increases in material benefits. Some see it as very important (Mr. G,I,K,L), while some do not want it at all (Mr A,C,E,H), or at the moment (Mr J). The patterns here are not obvious. Mr. B and Mr. D, both keen on promotion, have some similarities in that they both openly seek power, want more responsibility, want to organise, control and influence others. But for Mr. F who also emphasises promotion, this may be tied to his recent promotional success, as he admitted that he was recently thinking of leaving Chubb because of a range of frustrations, especially lack of variety and challenge.

It may be that promotion provided these, rather than being an end in itself, and Mr. F's frusrations may have been reduced by a different rather than higher level job. Mr. G and Mr. I seemed to want promtoion because they essentially believed their ideas were not being taken up by their boss, and for Mr. K, because promotion seems to be the done thing. Mr. L, much more in the mould of Mr. B and Mr. D, also wanting to organise and control for its own sake, had set his own limitations on promtoion and had positively placed it second to his family. Mr. A, Mr. C and Mr. E, possibly because of their age, may have lowered their expectations towards promotion, but Mr. C and Mr. E may also have realised their limits, and to promote them further would seem to be doing them a disservice.

Self development seems to be of limited importance, although it does have some relationship with age. The older, longer serving employees, Mr. A, C and E, did not feel it to be important. Mr. J, at 33, felt it very important, and Mr. L, 36, and Mr. D, 37, were conscious of it. But only Mr. J put any real emphasis on it.

Perhaps the most consistent factors that seemed to be emphasised were, on the one hand, related to self worth and evaluation, and on the other, to autonomy and independence. Doing a job 'well' was important for all the managers. Of course, it seemed to mean different things to different men, but it would seem to be tied in with their self evaluation and their self pride. Some felt their jobs were sometimes not done well (Mr. H), but this was partly blamed on other factors; in Mr. H's case, the lack of involvement of his boss. Moreover, the assessment of self worth seemed not to be related to any outside criteria, but a persons own personal judgement, which could be, of course, and sometimes was, erroneous. The company had very little formal feedback procedures, and indeed one man, Mr. I, would not accept feedback from his boss, as he would not accept criticism. Mr. E's self worth seemed to be very much tied up with being popular, which was not necessarily in the company's interests, when they were trying to implement changes which would make him unpopular.

Thus, the concept of self worth would seem to be a possible area of exploration, and the discrepancies between how you evaluate your own contribution and how the company sees it. Additionally, for some younger managers feedback was important (Mr. J and Mr. K), but for older managers and for the most part those in higher hierarchical positions, it was not, presumably because promotion was thought to be feedback in itself.

This notion of self worth and feedback is to some extent tied in with an equally consistently mentioned factor; that of autonomy, or the freedom to operate on your own without interference from your boss. In all cases this independence was seen to be important, but with greater reservations the lower you went down the hierarchy and the younger the manager. None of the managers complained of too much involvement, but Mr. J,G,H,K, and D, and to some extent Mr. E, all felt that, either some monitoring was important, or that they did not get enough involvement. Mr. D,G and H were unclear about longer term objectives, but which seemed to be as much a product of their dissatisfaciton with their boss's lack of interest as much as the absence of any codified objectives. Mr. E and Mr. C also saw setting and

achieving objectives as important, but this was possibly because of the fairly clear goals in a production environment. All these managers are on the second tier below director level, except for Mr. D. It may thus be a function of hierarchical position, although this is very difficult to say. But clear objectives are certainly a factor of some importance, at least at Chubb.

Variety and interest, also, were mentioned by most managers as of some importance, but the great difference in variety and interest between jobs and managers would make sensible comments on this subject, limited. However, whatever the meaning given to it by the individuals, these two items would seem to possibly have an important effect on behaviour. Mr. F's original intention to leave the company was basically prompted by the feeling that his job had become routine. Mr. H's lack of motivation seems to be related to the fact that his projects are not interesting.

Status had some importance for some managers (Mr. D,B,J,E), but for the majority was not of great significance.

One of the expectations of looking at companies hit by the recession was that it would affect the motivation of managers through an increased threat to security. Quite a number of managers mentioned that there was some uncertainty amongst the shopfloor, and recession had affected their own jobs in a number of ways, which are considered later. But only one manager (Mr. J) felt uncertain as a result of the economic conditions. It is quite possible that his uncertainty was a result of the fact he had been made redundant twice.

Another manager (Mr. E) felt uncertain, but this seemed to be only indirectly tied to recession. He felt insecure whenever a new manager took over, and while he might get a new boss if, for instance, the company changed hands, his insecurity seemed a different kind of personal factor, and possibly longer lasting, than recession.

There are a number of possible reasons why few of the managers felt insecure. The most obvious is Chubb's financial security which might

make most of the managers believe that losing their job was unlikely to happen to them. This could possibly be a little unrealistic. Some staff had been made redundant in April, but this had been voluntary. Nevertheless, the widespread rumours of further redundancy in October, and the feeling that most of those prepared to volunteer had already left, might have led some men to think more about their own position, that is, if they had realised, as Mr. J had done, that the 'impossible' could happen. However, apart from this there were also a number of other reasons why most managers were unlikely to feel great insecurity. One had been promoted recently (Mr. F), one felt his specialist knowledge was so valuable he was doing the company a favour by staying (Mr. I). Of the remaining 8, 4 had been with the company longer than 10 years (Mr. A,C,G,H) and 3 were young men who had achieved positions of high responsibility fairly fast, and unlikely to feel their positions would be abolished (Mr. C,D,L). Mr. D did feel that the recession was preventing him from moving elswhere, and this frustration may have greater impact as the recession continues. But Mr. C was regularly headhunted and Mr. L felt capable of moving if he needed to. In fact, some of the longer serving managers may have welcomed redundancy (Mr. E,G) which must partly reflect on Chubb's financial generosity to those being made redundant. I think it is true to say that the general environment at Chubb, its long profitable history, relative financial security, and paternalistic attitude, made it very difficult to feel insecure. Only Mr. I, the younger manager from outside the company with more direct experience of the recession, felt any different.

Another factor where the environment at Chubb may have had a particular socialising influence, was in attitudes towards political activity. Few managers could identify such activity at Chubb. All said the company was free of it, and only Mr. B, and to a little extent Mr. D, could make any comments about it. Indeed, Mr. L who one would believe to have some awareness of such factors, gave me the impression I was questioning his morality when I asked him about it. This may be particular to Chubb. It has a friendly atmosphere, a long history of good industrial relations and a complacency, that allowing for the fact managers would not comment on, or were ignorant of, poli-

tical activity, would seem to be factors that might contribute to an environment free of overt political activity.

Another factor which from the literature might be expected to have an influence on work behaviour, and which did to some extent, was outside work activity, especially the family. Mr. L had consciously made a decision not to put in the hours that he thought might be demanded for higher posts, because this would affect his family life. He had deliberately limited his work ambitions because of his family. Mr. J and Mr. F saw work as the most important area of activity in life, but both had had domestic problems, which Mr. J admitted had been a factor in his approach to work. Mr. G's great interest in his family life may have been a reason why he had made no great attempts to seek a job elsewhere. There must, of course, be other factors, not least his lack of training, but it seemed possible that as he could get a great deal of satisfaction from family life, he could tolerate a less satisfactory work life.

Trying to assess satisfaction and motivation, as has been noted, are extremely difficult, and my assessment has been crude, although it has been based on actual statements about motivation or satisfaction, from the respondents. From what was said at Chubb there seems to be some relationship between satisfied managers and motivated managers, and betwen unsatisfied managers and unmotivated managers, although this is very tentative as no real attempt was made to measure accurately, either factor. Perhaps even harder, is trying to establish what gives rise to motivation or demotivation, and satisfaction and dissatisfaction, in any coherent or consistent way. The above analysis has tried to see patterns and commonalities, and I believe there are consistencies amongst motivational influences, but there are, equally, a great deal of dissimilarities. For instance, if we take the three senior managers, Mr. B,D, and L, they do seem to have characteristics which distinguish them from the junior managers. Their ambition, emphasis on pay, desire for power and promotion, desire to organise, control and influence, and accept greater responsibility, were a marked contrast to the other managers. This, of course, may be a function of their position as much as of them, which may demand a particular type

of role play, but they all seemed to be of the same mould, that is, until one dug deeper, both for their motivations and for what they saw as important. Mr. B is 8 or 9 years older than the other two, is not constrained by his family, is highly status conscious, is much more ambitious than the other two, works very long hours and has a great sense of political manoeuvring and image building. Mr. L, who at first seemed to be a carbon copy of Mr. B, is not only more constrained by his family, but is much more concerned about self development, not concerned about status and is affected by the lack of challenges at Chubb, unlike Mr. B who creates them himself. Mr. D, equally, has differences which I will not explore here, but if the analysis was continued, one could easily end up with as many dissimilarities as similarities.

This is also true of the other managers. There are patterns. The older and longer serving employees, like Mr. C,E and G are not promotion conscious, are proud of what they have achieved, feel they have reached their limits, are not bothered about self development, and get great satisfaction from their family life. But when you delve deeper, you notice that Mr. G is only 37, although he seems spent. Mr. C at 57 is still highly conscious of the importance of pay, still enjoys change and challenge, unlike the other two. Indeed, the remaining managers point to the complexity of such analysis, even on only a superficial level. Mr. I's great motivation was developing new products, and as there had not been any for 6 years, one wonders in retrospect what keeps him going. In fact, I tried to explore this further at the time, but did not get any kind of answer. If Mr. K left the company it would be to write a technical journal. It might be a pipe dream, but he did not seem to have anything motivationally of greater importance to him than technical achievement. Mr. H possibly just likes talking. But all these latter managers cannot really be 'categorised' and, of course, to do so would be erroneous and forced at this stage.

It is, perhaps, the implied emphasis in research textbooks on looking for patterns, that makes one jolt when one realises that forcing this can really be a pointless exercise and also possibly misleading.

Nevertheless, having said this, although the consistencies between the data are limited, there does seem to be some kind of order, and the patterns that are highlighted here point to the areas where patterns may exist amongst other managers.

## B) CHLORIDE

### Introduction

The company in which the interviews took place, Chloride Power Storage at Clifton Junction, Manchester, is part of Chloride Industrial Batteries Ltd, a division of the Chloride Group. Chloride Power Storage manufactures all types of lead acid industrial battery.

Chloride itself goes back to 1887 when Electric Power Storage Ltd was the first company to exploit storage batteries commercially in Britain, at Millwall in London. The Clifton Junction site dates from 1893, but its real development came during the 1920s and 1930s when there was major rationalisation of the UK battery making industry. The Group underwent a major reorganisation in 1972, which forms the basis of the present organisation structure. Three agency companies were formed within EPS Ltd; Chloride Automotive Batteries Ltd (Dagenham), Chloride Industrial Batteries Ltd (Clifton Junction), and Chloride Supplies Ltd and Chloride Technical Ltd (Swinton). In 1975 a new motive power factory was built at Over Hulton (Manchester). In April 1982 there was further reorganisation when the Chloride Industrial Batteries Division was split and Chloride Power Storage was established (CPS).

### Present Position

To understand the present position of the company one needs to be aware of the downturn that Chloride has undergone in a relatively short space of time. Having made a £29m profit in the 1979 financial year, the Group was then severely affected by the sharp contraction in the UK manufacturing sector. Reduced demand for automotive batteries had the most significant effect on the company, but the recession also resulted in lower sales of industrial products, manufactured at Clifton Junction. In the 1981 financial year, the Group made a loss of £13.5m. Through extensive cutbacks, with 2,244 redundancies in

1980-1981, and 998 in 1981-1982 in the UK, the company managed to reduce its loss in the 1982 financial year to £2.4m. However, in June of this year (1982), the Chairman, Sir Alastair Pilkington, said there was unlikely to be any great growth in battery demand in the short term, and the Group had to continue to reduce its cost base (Financial Times, 19/6/82). Although there is some optimism that the company will pull through, many external commentators believe that the road to recovery remains tough, with a mountain of debt representing 97% of shareholders' funds, which the company has yet to make any impact upon. The announcement on the 30 July 1982, that Sir Michael Edwards was to return to the Group as non-executive chairman, raised Chloride shares from 2p to 28p. (The average share price in 1979 was £1.48).

The managing Director of Chloride Power Storage felt the company had undergone great change over the last two years, with a major reorganisation in April of this year when a large part of the work done at Clifton was transferred to Over Hulton. This had left about 1,000 employees on site, but there had been extensive organisational restructuring. It also had left CPS with a 37 acre site carrying large overheads. Only 4 acres of the site were needed for production. A large number of buildings were being buldozed to reduce rates. There had been some controversial changes. All staff, including the Managing Director, now had to clock-on. There was much less discussion with the unions, and the company, which used to be highly participative, was now much more autocratic. There was no industrial trouble at the moment, although the company had experienced some industrial conflict in the past, with a particularly damaging strike in 1977. Some changes had potential for conflict. Whereas before, a pay award was made to the Group, now, divisions received an award depending on 'market forces'. There had been no pay increase at Clifton Junction this year, although Over Hulton and Group headquarters had received an extra 6%. The MD felt that because of the redundancies in October last year, the reorganisation and no pay rise, morale was low amongst the workforce. Major redundancy was over, but further redundancy could not be ruled out. In the Group as a whole, managers had been reduced from approximately 1,100 to 830, although this had been mainly voluntary.

The MD felt the company was now leaner and fitter for the upturn, and that some practices, especially union practices, had been removed which he would not want to see return, and the company had benefitted from this.

He felt amongst management, relations were good and that everyone was open and direct. It was a traditional company with many long serving, experienced managers. He admitted that the financial position of the company was still difficult. The company was in the hands of the banks, especially the Midland Bank, and the company's position was similar to Stone Platt's before its collapse. The plug had not yet been pulled on them. They were unlikely to be taken over because of their financial insecurity.

Interviews

8 managers were interviewed from a cross section of the departments that were on the CPS site. An organisational chart showing the function and the hierarchical relationship of these managers is produced in diagram 2.

CHLORIDE ORGANISATION STRUCTURE SHOWING APPROXIMATE POSITIONS
IN THE HIERARCHY OF THOSE INTERVIEWED

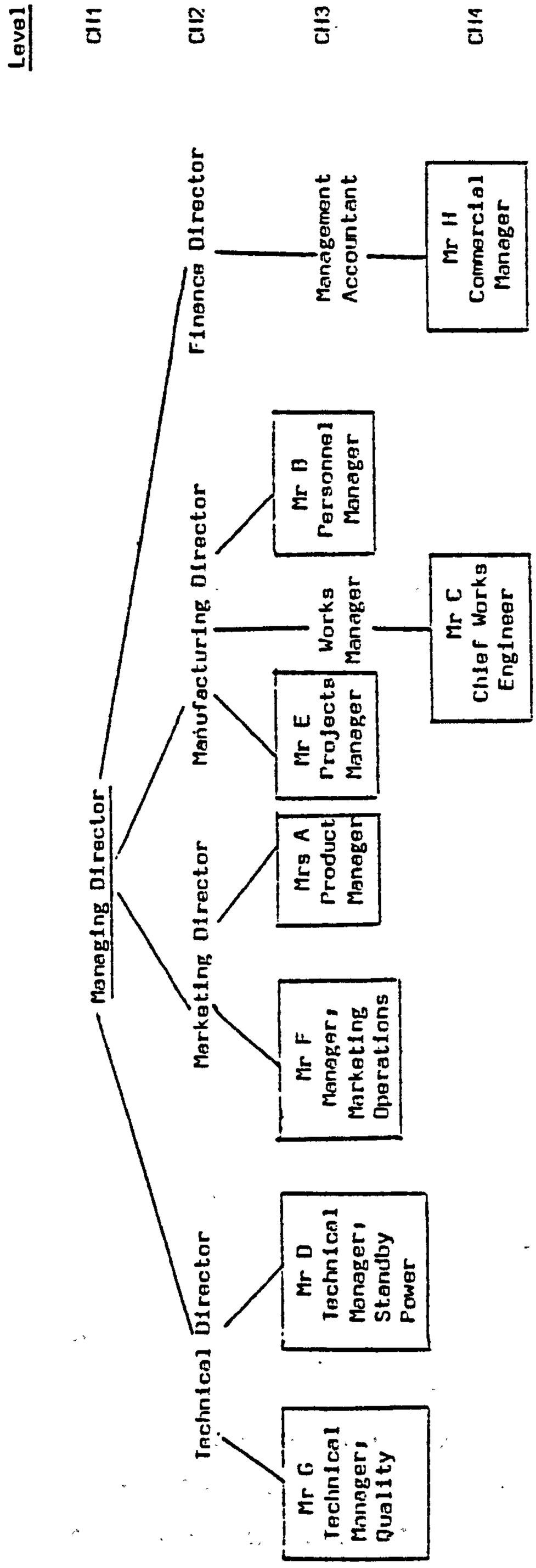



DIAGRAM 2

## Analysis

In only interviewing 8 managers, of course, the conclusions that can be drawn are even more limited than with Chubb, but the aim again is to throw up areas that might be investigated further, rather than purport to offer certainties. Nevertheless, there is a kind of oneness about the group of managers interviewed, especially the six managers immediately below director level. The most obvious thing about them is their self motivation and desire for autonomy. All seem to enjoy independence. They also believe that contributing to Chloride, doing a good job, having interesting work, having variety, and having challenges are important. Personal self worth, or self concept, as at Chubb, again seems to be important. Although these factors seem to be the most consistently mentioned, they may not be prime motivators in every case. But perhaps the interesting thing is that such a large number of managers do place emphasis on them as being at least equal to pay (Mr A,C,E,G,H). Only Mr. D and Mr. F placed great emphasis on pay, and Mr. F's concern may have been related to special circumstances. Near to retirement and a pension that is linked to his pay, his consciousness of pay may thus have been heightened. Indeed, his emphasis on pay contrasted with his lack of drive to leave Chloride, even though he was aware the company paid relatively lower rates than elsewhere. To argue, as he did, that there were no opportunities for someone in sales seems less than convincing. Nevertheless, other managers placed emphasis on factors that also seemed to be related to recent events. The one person mentioning promotion as important (Mr. D) had recently been passed over for promotion. Mr. H's concern about status may possibly have some relationship with his recent loss of it.

One striking thing, was the kind of realism many of them had. They all accepted, even Mr. F, the lack of a pay rise last year, and they all, except for Mr. D, lacked a strong desire for promotion. Indeed, the only person with any desire to get higher (except for Mr. D) was Mrs. A and she admitted she was greatly constrained by her husband. On the surface, the lack of promotional concern would seem to be a fairly obvious function of age. Mr. E and Mr. F are unlikely to feel they can go further at 60 and 58. It might also be a function of

hierarchical position, as the higher up the tree you are, the fewer the promotion posts. The trouble is that most of these managers are really not that old. Mr. B at 45, Mr. C at 45, Mr. G at 48, and Mr. H at 42. It must take something else for someone not to want promotion when there are between 12 and 18 years of working life left. There are similarities with Chubb here. Men working for many years in one company seem to grow old by their mid 40s. In Chubb, Mr G at 37, and Mr. H at 38 reduce the age of promotional disinterest even lower. Moreover, in view of their positions, they must have wanted promotion in the past. Is it that you can become staid, secure, and develop outside personal interests that remove the drive for advancement? Is it, as someone taking a Work Orientation perspective might argue, that once the family has grown up, the mortgage is secure, and you have reached a satisficing level in the organisation, you accept your position and look for other things? Few of these managers, in fact, seemed to have lost their ambition. Most still wanted to be seen to be doing a good job, to achieve tasks, even to go for new challenges, but not promotion. Perhaps there is a threshold, partly tied to age, partly tied to the hierarchical level already achieved and possibly, intrinsic job satisficers, and partly tied to outside interests, that removes promotion as an important goal.

Age, or length of service, seemed to be related to effort. Mr. E,F,G and B seemed to have given more in the past. Mr. D's admittance that he no longer worked as hard as he did, seems related to his failure to get promoted. Given this and given that these managers, for the most part, are not too bothered about pay, and not about promotion, the motivators would seem to be much more related to intrinsic factors, and those also tied in to self worth. This, of course, is much more difficult to substantiate. You know when someone has a reduction in pay, but it is less easy to know if they have had a reduction in self worth. From their evaluation of pay and promotion, the managers would seem to lend support to a theory of satisficing, but tempered by certain realities. Moreover, it may only be satisficing in one area. The lack of promotion and pay opportunities may give rise to a greater concern about the more intrinsic aspects of work. Certainly, what makes extrinsic factors, and what makes intrinsic factors important to the manager, would seem to be an area worth exploring.

Self development also may be related to age or length of service. Only Mr. H was really conscious of developing himself, but this was something that seemed to pervade his whole life, and had been with him for some time. Mrs. A, who wished to learn new skills, and who had a new post in, for her, a new area, could be seen as self developmental. But the rest seemed only keen to consider new skills if they were really necessary, and these could not be seen as prime motivators.

The recession had bitten Chloride much harder than Chubb, but again, except for Mr. F, there was little personal insecurity. Length of service, hierarchy, age, may all be contributors to this. It is interesting that those in their 40s who would be most likely to suffer from redundancy, with fairly narrow experience, but who still had a lot of working life left, were not worried, or, at least, did not show that recession affected them. In fact, overall, they were a fairly optimistic group, which seems most probably related to the redundancies and recent organisation changes. The reorganisation must have shaken them up and to have survived unscathed must give some sense of security. Mr. H, who was given his notice, in surviving redundancy, seems totally unique, but he and Mr. F together do seem to indicate that security is of some importance. It would seem to have qualities similar to a hygiene factor in Herzberg's terms. It does not have a motivating effect, and for the most part is not considered if you feel secure, but if it becomes threatening, it has a real impact. However, it would seem to be something greater than pay as a dissatisficer. Presumably one can live with low pay, even though it may cause dissatisfaction and possibly demotivation. From Mr. H's comments, the threat of insecurity, at least for him, did something much more. It had a much greater debilitating effect on him personally, which may be typical of people facing insecurity. Where, possibly, he may not be so typical is in the motivational consequences that insecurity had for him, as he managed to work his way back on to the company's books. Obviously, it is very difficult to draw firm conclusions here, as after the initial shock, others may also be highly motivated to re-establish themselves, but they are probably 'realistic' and do not attempt to do it in the company that has just sacked them.

There are some other obvious factors that might contribute to feelings of security or insecurity. Mr. E at 58 with a secure pension, Mr. C although 45 had a Navy pension, while Mrs. A and Mr. H, with knowledge of outside work opportunities, would all seem to have reasons for feeling secure. Nevertheless, it would not seem to be related only to financial security. The point about most of these managers was that they seemed to have a non-work environment that would also provide some kind of interest and satisfaction in addition to work. Indeed, some such as Mr. C and Mr. D would like to have given up work to pursue these other things. It may be the loss of structure and routine that affects older, blue collar workers after losing their jobs, but it may not affect managers so much. Their belief that they could keep themselves occupied if they lost their jobs may be a pipe dream and, of course, one would have to interview redundant managers to establish this, but the belief itself, even though unrealistic, may mean managers, at least at this stage and level, do not feel so personally threatened by the possible loss of their job.

None of the frustrations the managers had, really related to the actual job. Pay, which figured for Mr. D and Mr. F, is a factor unrelated to the actual job, as was promotion with Mr. D. None complained, for instance, of lack of variety, or challenge, or interest etc. Again, it may be the hierarchical level. All the jobs seemed to have a wide scope and flexibility and none, except in very broad terms, were dependent on superiors. It may be that as all these people have considerable opportunity to change their working environment to how it suits them, and possibly also the ability to do this, frustrations reveal themselves in much less controllable factors; as with pay and promotion, and, as with Mr. C, the overall running of the company.

There may be similarities here with Chubb. The three at 'manager' level had a great deal of flexibility. It was the managers below them, and, for the most part, not looked at at Chloride, (Mr. H is at a roughly equivalent level, but he had been demoted from a higher level), who complained of frustrations in relation to the job, especially lack of objectives and target setting.

An interesting factor is that both Mr. E and Mr. H, both highly principled men, had a much greater awareness of political activity and how it was played, than the others. It is possible that all the others engage in it, and Mrs. A's ability to 'twist men round her little finger' shows she is not without recourse to it, but they would not, or could not, articulate it in the same way. A number commented on the backbiting and jealousy of the executives, but the two men who were most distasteful of politics, were the two who could best describe such activity. Mr. H, who engaged in many informal political activities to re-establish himself, is an actual example of organisation contraction increasing political activity amongst managers, but as pointed out earlier, he is possibly unique. What seemed more in evidence amongst these managers was their docility and possible acceptance of seemingly weak positions, despite their hierarchical level. Mr. D and Mr. F seemed to feel that management was often used and could do little about it. This is possibly for a number of reasons commented on by many people before; the isolation, independence and autonomy of management, which in relation to the company can be a disadvantage to them; their length of time in the industry, which is a fairly narrow industry, with a possible lack of skill transference to other industries; and the traditional secrecy about pay, which Mr. F and H noted, was an area of possible exploitation by the company.

A point which although tentative seems to have some similarities with Chubb, is the approach taken by those at different hierarchical levels in the company. Those just below director were much more optimistic and positive about the company, than those below them. I do not think this was deliberate whitewashing, they may see themselves more as company represenatives, but in both companies the lower tier of management was more critical than those above. Mr. H might seem to have particular reasons for being critical, but both he and Mr. C could detail criticisms of the reorganisations that the others either dismissed or did not see. Perhaps 'positive thinking' is a function of hierarchical position.

A final point of interest is that, unlike at Chubb, the possible relationship between satisfaction and demotivation was much less in evi-

dence. Indeed, Mr. C who was very dissatisfied overall because of the way the company was being run, felt he put a lot of effort into his work. Moreover, a number of the managers expressing satisfaction with their job admitted to not being as highly motivated as they had been in the past. There may be a distinction between, not only what satisfies a manager and what motivates him, but also between what he feels is important to him at work and what motivates him, and these three, (what satisfies, what is important and what motivates), may not always be related. For instance, for Mr. G, pay is important but not a day to day motivator. For Mr. C the way the company is run makes him dissatisfied, but does not seem to demotivate him on a day to day basis. What seems to motivate, seems to be much more intrinsic and related to what alternative intrinsic experiences are available outside work.

## C) MASSEY FERGUSON

### Introduction

Massey Ferguson (MF) is a Toronto based multinational that manufactures and sells agricultural tractors and other farm machinery and implements, industrial tractors and diesel and other engines. MF is one of the biggest companies (in terms of sales) in an industry that is dominated by a few large manufacturing companies, and during the 1970s averaged 20% of total UK agricultural machinery sales.

The main companies in the industry, like MF, are multinationals such as International Harvester (IH) and John Deer, producing a full line of products, although some companies specialising in particular areas have had significant impact in the past, such as Ford in tractors. These companies fully established themselves in Europe after the 2nd World War when they considerably extended their manufacturing operations.

MF has been regarded for many years as a market leader in a number of agricultural products, such as tractors, combine harvesters and balers. The company has a good reputation in the industry for both quality products and efficient and progressive organisation and personnel policies. The main manufacturing activities in the UK are now confined to tractors which are produced at the Banner Lane site in Coventry, where some of the interviews were held. The remainder were held at the much smaller engineering works at Maudsley Road, Coventry.

### Present Position

MF is one of Coventry's biggest employers and the Banner Lane complex is one of the largest tractor plants in the West. In the mid 1970s more than 6,000 workers were turning out more than 90,000 units a year, either as finished tractors, or as kits for assembly overseas. About 90% of sales were exported mainly to the Third World.

The company started to encounter difficulties after 1977, but the UK operations were still able to return a £2.9 million profit in the financial year 1978-79. Since then MF, and Banner Lane in particular, has had a number of setbacks as a result of a slump in world tractor sales, high interest rates, the strength of the pound and political and economic disruption in key markets. Consequently, the workforce has shrunk to approximately 3,000 and output at Banner Lane is now only 45,000 units. In the financial year ending October 1981, the company announced a £13.3 million loss. The company was forced in that year to launch a massive re-financing programme to ensure survival. Financially the company's situation has not improved and the parent company on September 29 1982 announced a further reconstruction involving over 200 international banks and the end of the company's North American operations in Detroit.

In April of this year the UK company announced a programme of 725 redundancies of which 250 redundancies where white collar staff. The result was a three week strike and occupation of the plant which prevented my negotiations for access from proceeding. In the September announcement, noted above, the company said that further redundancies could not be ruled out at Coventry.

A week later, on October 2 1982 one of Massey's main competitors, International Harvester, also announced a deal with the banks to restructure debts which had reached £70 million and were still rising.

## Interviews

Interviews were conducted with a total of 37 managers in two departments; the Engineering Department and the Finance Department. 17 managers were interviewed in Engineering and 20 in Finance. The managers were a random sample of half the manager population of each department.

The two organisation charts show the relative positions for each of the managers within each Department. In relation to each other the F4 level in Finance is roughly equivalent to the E4 level in Engineering.

MASSEY-FERGUSON DESIGN DEPARTMENT ORGANISATION STRUCTURE SHOWING APPROXIMATE POSITIONS IN THE HIERARCHY OF THOSE INTERVIEWED

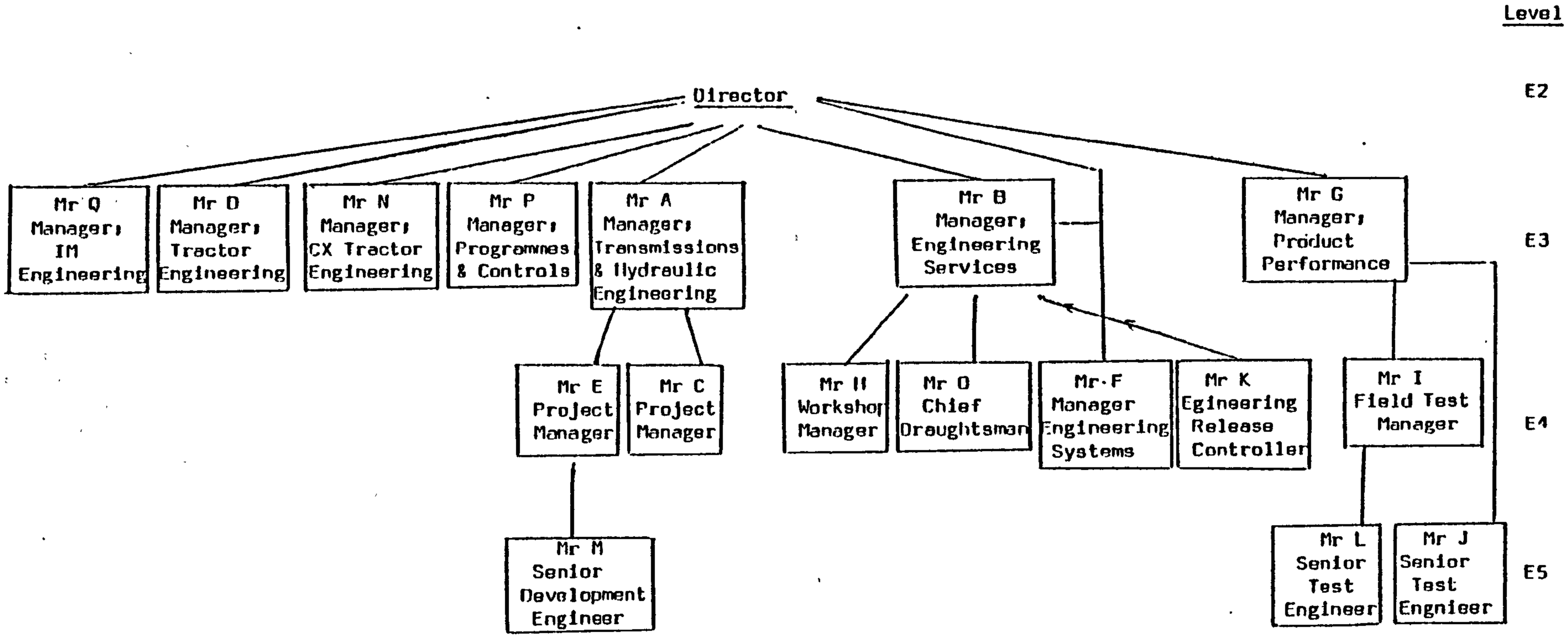



DIAGRAM 3

MASSEY-FERGUSON FINANCE DEPARTMENT ORGANISATION STRUCTURE SHOWING APPROXIMATE POSITIONS IN THE HIERARCHY OF THOSE INTERVIEWED

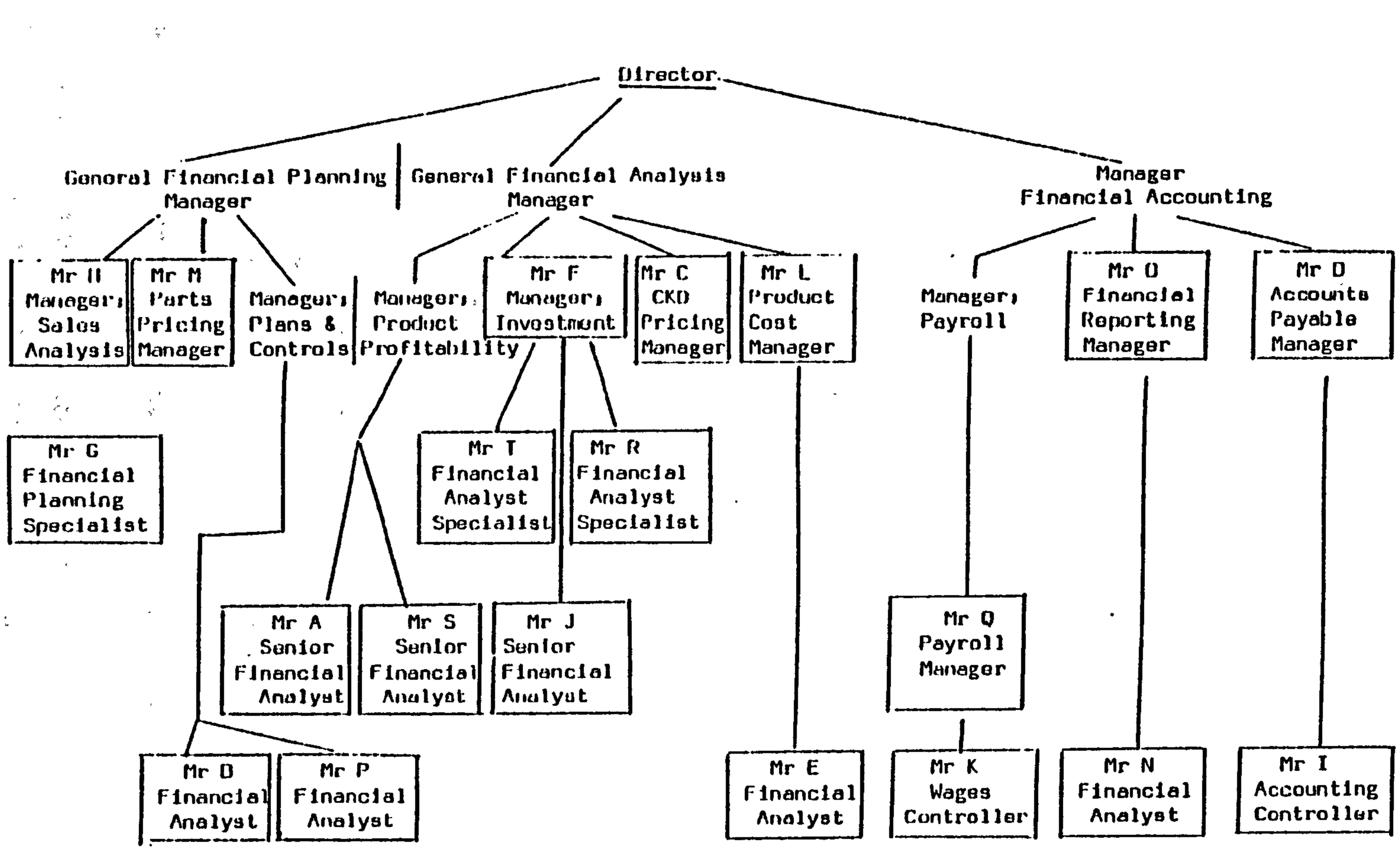



DIAGRAM 4

While both Departments are in the same company, there are many factors that greatly distinguish the two Departments from each other. The first is the physical location. The Finance Department is located in the main office block on the Banner Lane site. The Engineering Department, on the other hand, is 2.5 miles away on a separate site at Maudsley Road, isolated from the rest of the company. The two Departments are also distinguishable by the age and length of service of the managers in each. The managers that were interviewed in the Engineering Department were older, longer serving employees with, consequently, more experience and at a higher level in the hierarchy than those in the Finance Department. Only 2 of the total of 17 managers in Engineering were less than 40 years old and the average age for the group was 48 years. The length of service is, on average, 19 years. In Finance, on the other hand, of the 20 managers, only 2 were 40 years old or over and 8 are in their 20s. The average age of the group is 32. Their length of time with the company is also much shorter than in Engineering. While 8 have been with the company for more than 12 years, 12 have been with it for less than 10 years and the average length of service is 9 years.

Another distinguishing feature is the impact of the company's economic condition on the two Departments. The redundancies that were announced in February/April by the company were the culmination of a long period of negotiation, essentially with the direct labour force, beginning in November of last year (1981), but affecting staff also. The Finanace Department suffered between a 25% and 40% reduction in staff in different sections. The main impact was on clerical staff, but managers were also involved. Some took voluntary redundancy, some were involuntarily demoted. Moreover, in addition to these changes, the Department also underwent, at the same time, a restructuring and reorganisation. For Finance it was a major period of upheaval, which has not really ended. In confidence, I was told that the Department would have to suffer a further 18% cut in staff over the next 2 years.

The Engineering Department, in contrast, suffered relatively little upheaval. There were a few redundancies at Maudsley Road in February but these were minor, and there has been no major reorganisation. The

original reason for picking these two Departments to study was to contrast one that had been hard hit by recession against one that had suffered little, so that conclusions about recession might be drawn. Unfortunately, in the end, this was less straightforward, partly because factors such as age and hierarchical position are different, as noted, but also because the Engineering Department had been undergoing its own kind of change, but over a longer period. The Director of the Engineering Department had been appointed 2 years ago essentially to improve the efficiency of the Department. A production function man by training, he had maintained a consistent policy over the 2 years of using production type methods, such as tight deadlines and concrete output measures, on what were, essentially, design and semi-research staff. The Engineers' world had been far from quiet, which while not being the result of direct contraction of the Department, could be seen as an indirect consequence of contraction of the company and the need for improved efficiency overall.

A final distinguishing feature is the nature of the function. It is probable that engineers who have suffered from a status problem nationally and have had a major review of their position recently in the form of the Finniston Report, should have a different outlook to financially qualified people. It would not be unlikely, either, that a function closely aware of the financial position of the company should have different opinions generally about solutions to the company's difficulties, than engineers.

## Analysis

### Introduction

I have attempted to analyse the data from Massey more in terms of categories than was the case with the two previous companies. The main areas considered are, pay, promotion and career structure, self image and job content, autonomy and feedback, self actualisation and skill development, personal contact and interaction, redundancy, job insecurity and the company's future, demoted managers, outside work factors, political activity and the relationship between satisfaction and motivation.

### Pay

#### Engineering

In Engineering, for by far the majority of managers, pay is not a source of dissatisfaction, nor does it seem to affect their day to day motivation very significantly. It might affect whether a manager leaves the company, but this would also be in relation to other factors such as career prospects and job satisfaction. For 8 managers (Mr.D,F,H,J,K,M,N,P) it is not the most important factor at work. This is not to argue that it is not an important factor, but that it is not given overriding priority. Only 4 (Mr.E,I,L,Q) would see pay as very important and the main reason for coming to work. There does not seem to be any obvious factor, age, position in the hierarchy, family circumstances etc., that would explain this. The rest are satisfied with their pay, although there does seem to be some explanation for their contentment. Some have sufficient for their needs (Mr.H,K), others see it, either in line with market rates, or not too far below them (Mr.C,G). Additionally, their notion of pay relative to others is also important, especially other managers within Massey (Mr.I,B,O,). As Mr. B remarked, he could live with a cut so long as everyone else suffered equally.

A number mentioned that they had lower exectations of pay increases as a result of recession, but it is difficult to say to what extent such expectations had dropped. Possibly an important factor, although, again, one that is difficult to fully assess, is the fact that everyone received some sort of increase because the company operated a merit rating scheme where additional percentage increases in pay were awarded annually depending on merit. Almost every manager in the Department felt that this was merely a cost of living award. The only fairly certain way to find out whether this has a significant impact would be if the company stopped the system and gave no annual increase. However, there is evidence to suggest, noted below, in relation to changes in lunch arrangements at the works, that deprivation of relatively small perks can have quite a large impact, not necessarily on motivation, but at least in terms of causing frustration and annoyance. With regard to pay, expectations may have dropped overall, but the prevention of turning such rewards in to open frustration may depend on the retention of some increased reward, even if only a token offering.

Finance

The issue of pay was much less clear cut amongst Finance managers, but it does seem to be more of an issue than in Engineering. One manager suggested that those in a finance department, because they are constantly dealing with financial aspects, consequently, see material rewards, such as pay, as more important than other managers. This may be the case to some extent, but it is probable that it also has something to do with the age of managers, their position in the hierarchical structure and family commitments. As a generalisation, starting a family and things such as the early part of a mortgage may have a considerable impact on a smaller wage packet than with older managers. A number of managers (Mr.A,I,L), mentioned that they had focussed on pay more recently because of such things as starting a family, and wives having to give up work.

For most managers in Finance, pay is important. 4 managers (Mr.A,B, N,P) see it as of overwhelming importance, while 5 (Mr.G,H,J,K,M) at

the opposite end of the spectrum would see it as not of great importance so long as they had enough for their needs. The rest see it as important, but in conjunction with other factors, and Mr. A would also consider other factors before thinking of working elsewhere.

3 managers (Mr.B,N,P) felt, and felt quite strongly, that the company was paying below the market rate. They believed that they could do better outside and will leave as soon as they find a job. While 8 managers altogether, admitted to actually seeking a job outside and wanting to leave the company if they had the opportunity, these three managers would leave solely because of pay. This does not mean that pay was not a factor in the consideration of others, but they tended to see the problem in a more rounded way with other factors as important if not more so.

The dissatisfaction amongst these three managers over pay, however, did not seem to be related to just wanting money for more material benefits. Their argument was that Massey was not paying a wage that reflected what they thought was their 'value' to the company and they intended taking jobs with companies who would 'value' them more. It would seem that money as a form of feedback or reflection of their worth to the company was the most important consideration.

This singular dissatisfaction tended to confine itself to younger managers lower down the scale, who possibly felt they had lost out over the last two years to a greater extent than others. For the other 17 managers, the actual pay they were receiving right at that moment was not a source of dissatisfaction, and for the majority it was not dissatisfying because the managers had the opportunity to make up what was often considered a low basic wage to a 'decent' wage through overtime (and this could be an increase of as much as £2,500 p.a.). I say 'at that moment' because a distinguishing feature of managers in the Finance Department was a greater consciousness of pay than was evident in Engineering. This may be because of age, or hierarchy, or mobility, but Finance managers seemed much more aware of pay relativities and how the job market was moving.

Only one manager (Mr.P) felt that pay was affecting his effort at the moment. 6 felt that if they became dissatisfied with pay their effort would be affected, but by how much is difficult to say as some admitted that their expectations of pay increases had lowered as a result of recession, and presumably the threshold at which they felt dissatisfied with pay would also have lowered. However, because of the factors mentioned below, I do not think this reduction would be substantial. The main impact of such dissatisfaction is to motivate the manager to look for a job elsewhere, although obviously, at least his enthusiasm for his present job would be affected.

## Promotion and Career Structure

### Engineering

For by far the majority of managers in Engineering, promotion is not seen as of importance. 5 expressed a wish to get higher (Mr.E,F,L, M,Q) and 3 of these (Mr.E,M,Q) see it as of particular importance. For most, although not all of the remaining 12, promotion was important in the past, but for a number of reasons no longer has great significance. The reasons for this are a combination of age, satisfaction at already having achieved a reasonable level in the company, and the realisation that there are fewer jobs higher up and they carry particular burdens and frustrations. For those who are still keen to go higher, there is no particular relationship between this desire and the level at which a manager is in the hierarchy, and not a great deal of significance in terms of age. Clearly, as you get to your mid 50s the desire for promotion is probably less strong, but not all younger men are promotion conscious and not all older men have abandoned the notion.

What is noticeable, however, is some of the thinking and motivation behind promotion. 7 managers noted that they were reluctant man-managers or reluctant coordinators, and one or two more may have felt the same way, or some sympathy with this reluctance, as three expressed concern about the lack of career structure for design engi-

neers. These 7 generally felt they had been forced to leave the kinds of jobs they most enjoyed and in most cases the jobs they felt they were best at doing, (that is, jobs dealing with technical problems and requiring a lot of technical expertise to overcome them). They had left these jobs for coordinating or man-management jobs that they disliked, and also were not very good at in some cases. Mr D, for instance, admitted he should have stayed in testing and had now been promoted to his level of incompetence.

It is difficult to say if, in the past, the promotion chances of these men had been blocked, whether it would have greatly affected their work effort. Present promotion expectations are generally lower, but those who are promotion conscious see it more affecting whether they stay or leave the company, rather than their effort. As for 7 of them their next job is that of Director, this would not seem unusual. But while it is difficult to say whether blocked promotion chances would have greatly affected these men in the past, clearly it has been a positive incentive for some of them to take on jobs they did not really want to do, or were good at. Moreover, I found it difficult to establish fully for all of them why they ever took such jobs. For some it was clear. Mr. B, for instance, said it was the power and the position of being the Director's right hand man. For those who enjoyed their promotion, it was factors like being able to organise and control others, responsibility etc. But for those who were not keen on their present posts, their reasons for moving higher were less obvious. Perhaps the recently promoted Mr. G gives some insight. He has been in his new job for two months, but is fearful that he is not a man-manager and he feels ill-equiped for the role. He feels he is not greatly ambitious and likes technical problem solving. He accepted the promotion because of pride. His self image is very important to him and promotion is a reflection of ability, competence, the company's evaluation of him etc. If Mr. G does not come to grips with man-mangement it would seem likely that in four years time he might wonder why he ever took on the job and find it very difficult to be specific about his reasons.

Thus, the situation of technical men reluctantly taking on coordinating jobs, apart from indicating something is wrong with the

career structure at Massey, would also seem to say a lot about promotion alone as an incentive.

Finance

14 of the managers in Finance are promotion conscious and looking for further career development. 6 are not (Mr.D,G,H,K,M,P), either because they are happy with their position in the hierarchy and do not want to or cannot go higher and accept this, or because they feel they are not ready for promotion. Possibly, the majority of these could not be classed as ruthless climbers, but would like to see a 'normal' progression up the organisation. Some see themselves progressing in terms of time; for example, three years in a post and then on to the next. Some like to master a job first and then consider their position, and consider what ought to be their next move, while others feel a combination of these two.

This was, perhaps, the main factor that was causing concern in the Finance Department. The company had given little indication to managers about future prospects. Most of the managers felt that a contracting organisation could not offer the same career prospects now as it had in the past, but many wanted some indication of future chances. But comments on this subject often gave me the impression that managers almost had a mental block when relating their position to that of the company's. On the one hand managers would often comment that promotion prospects were very bad in the company. 10 commented in this way. Yet later in the interview they would complain that Personnel gave them no indication of their career prospects. At first I thought they were just unable to make the obvious connection between Personnel's silence and the fact that, if anything, the likelihood was fewer posts in the future rather than more. But it transpired that being officially told where you stand seems to make a difference. At least 5 or 6 felt that deep down there was really a career for them and all it needed was the rather incompetent Personnel Department to tell them this. The others wanted to know so that they then had a firm reason for looking outside if they found there was no future in

the company. Perhaps they were expressing a need for some kind of certainty in a very uncertain environment.

Again, while promotion may have some influence on day to day motivation, from the comments of the managers it would not seem to be great. It will certainly dampen enthusiasm which may affect motivation, but the impact of such dissatisfaction is primarily in terms of wishing to leave the company. While dissatisfaction with both pay and promotion seems to have affected a greater number of managers and to a greater extent in Finance than in Engineering, the main factors that affect motivation seem to lie elsewhere.

Self Image and Job Content

As the literature shows, and as I have stated on a number of occasions, establishing the main motivational factors attributable to managers is not straightforward and generalising can be contentious. Nevertheless, the main factors that seemed to influence day to day motivation in both Engineering and Finance, in very broad terms, were partly related to a manager's self image and partly related to job content.

Engineering

In Engineering, a factor that was common to nearly all the managers was being able to do an interesting job, that is important to the company, and being able to do it well. This can take a number of forms. It can be in terms of starting a project and seeing it all the way through, or in having technically difficult problems and then overcoming them. What seems to frustrate is where, for instance, a manager has to chop and change, or cannot see a project all the way through, where there are changes in direction, or where there are niggles preventing the main work being done. Although this does not apply to every manager, for the majority, whether they are motivated depends on whether they are able to accomplish tasks, either to a

satisfactory level in relation to their own personal standards, or in relation to the standards set by a significant outside body, such as their boss.

Where managers were able to control the circumstances and achieve either their own standards or those set externally for them, there seemed to be fewer motivation problems. Where they felt unable to do this because, for instance, they had little control over resources, or there was a reduction in staff, or the external standards were too high, or the timespan for completing their work was too short, then some managers became at least frustrated by this. One might argue that 'management' is about overcoming tricky problems, and this may be a valid argument to some extent as some managers felt they derived satisfaction from overcoming such difficulties. But to be motivated, it seemed that the managers in Engineering, in very general terms, also had to feel two additional things, which has some relationship with expectancy theory. The first was that they had to feel they could overcome the problems, and the second was that there was some importance in doing so. Where, for instance, a manager went to a lot of trouble to see a project through, a new design for instance, only to have it filed away and this happen on a number of occasions, he would be less than eager to tackle his next assignment. If a manager was half way through producing something only to have it changed, and again on more than one occasion, then again he was not keen to do the next task. If he felt that standards were being lowered because of factors beyond his control, then there was the possibility of demotivation, or at least of frustration.

The problem with the above is that these conclusions are based on the general statements of the managers I interviewed. Using the research process I have, I have no way of knowing with great certainty whether these factors do, in fact, reduce managers' effort. I am not sure whether, even though frustrated by the things mentioned, managers in the end do just plug-away and their motivation is not appreciably lessened. Moreover, I am not sure either, whether people adapt to these frustrations. The end product may be more psychological tension, less satisfaction, less work happiness, but effort may stay the

same. The best I can offer at the moment, is that these factors based on the statements of the managers I interviewed in Engineering would seem to be, at least in the minds of the managers, major influences on their work effort. They may not apply to all managers all of the time in Engineering, and an objective assessment of managers' work effort, if one were possible, might reveal a different picture. Nevertheless, this is management thinking, and the assumption is that this must at least contribute to the way they do their work.

Finance

Above I have emphasised that the comments apply to the Engineering Department. From the statements of the managers in Finance, job content and feelings of self worth or self image would also seem to be important here, but there are slight differences. In Engineering, for instance, 'doing a good job' might be starting a design and seeing it through to the finished product, which might last two years. Doing a good job in Finance, might be producing a desk study within 24 hours of the pros and cons of shutting the tractor plant in France. The notion of 'doing a good job' is obviously different, but it still seems to be of importance.

On the whole, the managers I interviewed felt they were hard working and could not work much harder. They certainly worked long hours and quite a few felt it was a hard working department. Those who admitted to a reduction in effort were those who had been demoted in the reshuffle in February. Some, while dissatisfied with pay and promotion, still felt thay were working hard and one or two (for instance, Mr.I,P) felt they did not know why. Also, by far the majority (17) were satisfied with their jobs. This is not to argue that they were satisfied with all aspects of the company, but as far as the immediate job itself was concerned, there was generally a good deal of job satisfaction.

Again it would seem that the amount of effort a manager puts into his job is partly related to job content and partly related to some kind

of self evaluation or standard. The fact that jobs were seen as important to the company, were challenging, had variety and were interesting, seemed to be a prime factor in whether the manager thought he would work hard or not. Also important was whether the job was broadening the skill range of the manager so that he was becoming well rounded in skill terms.

In relation to the other factor of self evaluation, this seemed to partly relate to pride, partly to an individual's own personal benchmark and partly to the need for recognition from others. It would seem to be one of the factors why those who were demoted and who believed they were continuing to work hard, as far as they could see, did so, although, obviously, the further threat of losing your job and in all their cases the lack of marketable qualifications must also have had some impact. Mr. R, who was demoted, seemed to articulate the situation best. He felt he still worked as hard as he did before, as he had high personal standards. But he was sure the demotion had affected him and that he lacked enthusiasm. He was not conscious of working less hard, but he felt his attitide must prevent him from, for instance, developing the job, seeing all the angles, going through figures or reports as thoroughly as he would have in the past.

Another factor and possibly of some importance in trying to understand why the Finance managers, in general, considered they worked hard, was that there was more work and it had to be done. Again it is probably related to feelings of self pride and recognition for ability and competence. Managers may not necessarily like it, although 6 or so admitted to enjoying pressure, but they still do it. But perhaps another reason for this, other than self pride alone, was a factor that not many people spoke about, but may be of greater significance than the amount of emphasis given to it. This was a kind of work ethic, or possibly the results of a long socialisation process that could not be easily articulated and, possibly, also the result of cultural factors of the immediate environment. Mr. K in Engineering perhaps explained it best. He felt that one of the main reasons why he worked hard was because this was the way he had operated all his life. He was 57 and felt he had become used to this and accepted this

way of working over many years. Rarely, he felt, did you reflect on it, question it or understand it. Moreover, in Finance, from the comments of a number of managers, there seemed to exist a 'hard working' culture. To be slacking in that kind of environment and especially where jobs are on the line, would not be easy, but not something, necessarily, that unless you really thought about would you be conscious of, and a number of managers mentioned that the pressure prevented a great deal of speculation about work, even if they were accustomed to doing this anyway.

## Autonomy and Feedback

### Engineering

Autonomy, or the freedom of a manager to carry out work in his own way, if not one of the most important factors, was the most consistently mentioned factor. Autonomy, was also something that some would pay a high price for. Few could return to a position of what Mr. N called 'subservience'. Most mangers would seem to operate best where they had broad objectives, realistic deadlines and were allowed to work undisturbed within the broad parameters set. Autonomy to the extent of disinterest, of course, would seem to be of little use. Those who felt this, such as Mr. I, also felt that their work rate was not very high, although in Mr. I's case this was also because he did not have work of any great significance to perform. But the managers who complained of being frustrated and whose enthusiasm, at least, had dropped were those whose autonomy was being affected.

The thing that was most affecting this autonomy was the work practices of the Director who had been in charge of the Department for two years and who was seen by 5 managers as someone who had been appointed to shake the place up, as the Department had a reputation for inefficiency. It is difficult to say what the effects of the Director's practices were in terms of work effort, but his methods were certainly having some impact. It seems he used a number of techniques, from setting very tight deadlines as far as engineers were concerned and in

terms of what they had been used to in the past, and including a constant follow up and review process, to improving everyones' time-keeping by standing by the work gates and pouncing on late comers. Few of the managers actually said they were frightened of the Director, but a lot said others were, and even the more senior managers I spoke to would, for instance, accept practices imposed by the Director that they all felt were wrong and inefficient, but against which few would complain.

The effects of the Director are difficult to assess. It seems that because of the deadlines, managers were working more quickly, but the standard of work was much lower as many complained of corner cutting and frustration as a result of not being able to do a job properly. Whether the level of work quality the Department was now producing was acceptable in company terms, is difficult to say, although the Personnel Department remarked that Engineers were too thorough with their work and took too long, so it now may have been more acceptable. But in personal terms it was not. Mr. E and N complained that because standards had dropped so low in order to meet deadlines, for instance, a major error in design could go through and they were frightened of this. Others could just not cope with the deadlines, such as Mr. D, or Mr. C who felt the pressure was making him tense and confided that there was some possibility of him having some kind of nervous breakdown. Others, such as Mr. O, mentioned that work was being produced just to meet deadlines although it might be of little value, while Mr. B complained that the Director's practices had meant managers now haggled over problems rather than tried to solve them and would cheat and lie just to save their skins. If there was any one common factor that would make the Engineers leave the company it would be the Director's approach, yet it may well have increased work effort. The trouble with this is that in personal terms there also seems to be psychological costs which could be high, and in organisational terms not necessarily an increase in efficiency or overall benefit to the company.

Most managers, nevertheless, were happy with the feedback they received on their performance even though in the case of 7 managers it

would be the Director who would provide this. Some did not want reassurance and there were a few who expressed a desire for more informal encouragement. However, it seemed that the satisfaction with feedback was as much due to a manager being in a job for a number of years without getting many roastings, rather than because the feedback was positively good.

Finance

Autonomy was also important to most of the Finance managers, but it did not seem to have the same degree of importance as in Engineering. This may be due to age, hierarchical level or the function. But it would seem fairly obvious that managers like Mr. L in Finance who is 29 and has been working for 7 years would feel the need for more guidance and feedback than Mr. O in Engineering, who is 61, has been Chief Draughtsman for 10 years and who, in his own words, likened himself to God, although modestly confined his area of jurisdiction to the drawing office. But there was also a need for more clearly defined work objectives in the Finance Department, although this may be as much due to the disruption that the Department experienced, as it is to age or differences in hierarchy.

As far as feedback was concerned, in Finance most managers were happy with this, although a few expressed a desire for more. Of interest was feedback in relation to those who had been demoted. For most of the 5 who had been demoted, the demotion had been seen as very negative feedback, but much frustration and annoyance seemed to have been caused also by inaccurate feedback. It would seem that while demotion is likely to have considerable impact on the individual anyway, it was, nevertheless, heightened by the fact that few of the managers thought they were doing badly. In fact, Mr. R thought he was in with a chance of promotion during the February reshuffle. Perhaps these managers were not demoted because of their performance, but due rather to the peripheral activities of the sections they were working in. If this was the case it would seem to have been poorly communicated in Massey.

## Self Actualisation and Skill Development

### Finance

There is a difficulty in establishing just what is being talked about when trying to convey the notion of self actualisation, but of those who did feel that they understood the concept, the reactions were interesting. Of the 16 who could make some comment about it, few saw it as a positive motivator. It was seen more as a by-product of work rather than an incentive. Mr. E,J,N,Q,R,T saw it to some extent in this way. Mr. Q, who had been with the company for 14 years, felt it was work that had contributed most to has confidence and experience. Mr. R felt that work was the only place you had any challenge, especially intellectual challenge. But in all these cases this was a reflection of what had happened to them, rather than their conscious reasons for working. A number felt self actualisation was possible, but there were severe constraints in an organisation like Massey. Mr. C,H,K,L,O saw it more this way. Mr. C and Mr. O thought it was possible, but only in terms of being, say, a Chief Accountant in a small company. Mr. H thought it was possible, but only for a few in control at the top of an organisation. Mr. H also added that in a time like the present when jobs are insecure and you might be thinking of going elsewhere, then the notion of self actualisation does have some salience because you are aware that a move to a similar organisation will not bring it, but a job in a smaller company, although with fewer organisational type opportunities, might have opportunities for self actualisation. You had to consider this trade off.

Mr. F was probably the only person who came close to self actualisation at work. He was someone who came to work to fully master a job and did not seek, for instance, promotion, until he was fully on top of his job and had got everything out of it he could. For the most part, however, in Finance the managers were not conscious of the concept having a strong positive influence on work behaviour.

This contrasts with most of the managers' desires to ensure that they were developing their skills. But I think this was seen almost purely

in instrumental terms. Most of the managers wanted to have a range of financial skills and experience so that they became well rounded, from management and cost accounting experience to financial analysis. But this seemed to be related to wanting to ensure that they were a more marketable product, both in terms of getting a job outside and in terms of getting promotion inside, rather than primarily in terms of the intrinsic value of such skill development.

Engineering

Engineering managers seemed to be less enthusiastic about the concept. 10 felt it had no meaning for them. Mr. A,K,I understood the concept but felt it was by-product of work or that they self actualised at home. Some of the engineers had workshops at home where they continued their engineering pursuits, but unconstrained by the organisation. Mr. P saw it similarly to Mr. Q and R in Finance, in terms of personal development as a result of progressing through the company, but again this seemed to be in retrospect rather than because self actualisation was a positive motivator. Mr. F and N possibly did see it as motivator. They felt it had salience and that they came to work to grow, but for the rest it was not of great significance.

Most of the managers in Engineering had already developed the skills they would ever need. Some felt they might need more management skills, but for the most part, skill development was not seen as particularly important except for one area. This was a knowledge and understanding of computers which 6 managers had undertaken to learn about in their spare time. This, however, seemed to be more out of necessity than intrinsic worth. The company was an estimated 10 years out of date with its computing facilities and was making some effort to catch up, especially in the area of computer aided design (CAD). It seemed that as computers had come to stay at Massey there seemed little alternative than to try and learn something about them.

Personal Contact and Interaction

This was an area that I originally felt would be quite easy to establish as important, or not, for the manager. On the surface it would seem straightforward to ascertain whether a manager felt contact with people at work was important, but in fact this was not the case. Possibly one of the reasons was that both in Engineering and Finance good relations and contact with people on a friends type basis was taken as the norm. It seemed to me that it would only be possible to establish whether this aspect was important if relationships turned nasty. Some managers, however, especially in engineering were able to say that they disliked man-management because they disliked dealing with peoples' personal problems. But the best I was able to do in this area was to distinguish between a number of types of interaction. The first is that of normal friendly relations; the second is dealing with personal problems; the third is in organising and controlling people, getting them to work together in a team or be productive and work well unsupervised; and the fourth is exchanging ideas between people. In Massey I did not feel I was able to go further in this area and certainly do not feel able to do the same kind of analysis I have on the other topics.

Status

No manager admitted to being status conscious, although I think the concept is particularly difficult to define and communicate. Two events at the company, however, may give some insight, partly into status and partly into how people react to a reduction of benefits. Both events affected the Engineering Department and not Finance.

The first of these was the change in lunch arrangements at Maudsley Road. These had occurred in February. The system that operated before February was that all the managers I interviewed were eligible for a free four course lunchtime meal with waitress service in their own restaurant. This was changed to a situation where the managers

now had to pay for their meal, there was no longer a waitress service and all had to eat in a communal dining area with other employees. The material loss was calculated by some managers at £250 p.a.. There was no reduction in the standard of the food itself.

The second event was the possibility of the Engineering Department moving from its Maudsley Road site to the Banner Lane complex. The Maudsley Road works had been up for sale for two years, but had not yet been sold. Nevertheless, the company's policy was to move the Engineering works as soon as a buyer could be found.

With regard to the lunch changes, 10 of the 16 managers affected were quite annoyed at what had happened. Most said it was a minor problem, but it seems to have generated a great deal of dissatisfaction for only a minor irritant, and quite out of proportion to the individual loss and company saving. Considering the state of the company, a £250 p.a. reduction for managers earning £14,000 p.a. upwards would not seem to be burdensome, although one manager objected to an effective pay cut that other groups had not suffered. However, the main loss seemed to be in terms of the exclusivity and privileges the managers enjoyed and the chance to relax and talk together in splendid isolation. A number felt it was a slap in the face by the company and some managers saw perks and privileges as the trappings of being a manager. But their annoyance may also have been due to a form of relative deprivation; that sometimes small rewards, perks or privileges, if taken away, can have some impact purely because people had them in the past and any reduction is felt as a loss.

The proposed move to Banner Lane was not popular. The main argument given against such a move was that the Department carried on semi-research activities and if they were too close to the production function at Banner Lane they would be constantly interrupted. Most played down the dominant criticism of the Department from outside, that engineers designed things without understanding or seeing the consequences of their designs for the farmer, and were too divorced from the finished product. Nevertheless, in view of the increased pressure,

some managers may really have felt they could not tolerate more interruptions. But it was something more than this. After the Engineers had offered the official line they would then add other items, like for instance, the fact they all had their own car parking spaces with their own name plate; that they could get people like delivery men to run outside errands for them; that they saw themselves as a cut above production men and saw the physical isolation as contributing to that status. If this should sound petty, one of the strongest reasons given by 6 of the managers was that they would have to travel further to work. Maudsley Road is a 2½ mile drive from Banner Lane along a largely uncongested road.

Redundancy, Job Insecurity & the Company's Future

The individual manager's feelings about job insecurity and the company's future, and his attitude to the way the company has handled redundancy, are sometimes not entirely separable. For instance, 2 or 3 of the managers in Engineering who felt that their jobs, as far as they could see, were secure, having seen or heard about the way some 'loyal' employees were treated during redundancy, felt less secure. Also, while there is a distinction, of course, between whether an individual feels his own job is threatened because of, for instance, rationalisation of his particular area of the Department, and between whether he thinks his job is threatened because the company as a whole may collapse, sometimes the two merge into one. I will attempt to consider separately managers' attitudes to company redundancies, job insecurity and the company's future, but clearly they may all have an influence on some individuals in a way that cannot be easily distinguished.

## Redundancy

### Engineering

As a Department, Engineering escaped relatively lightly in comparison to Finance, from the February redundancies, and so, consequently, there are quite considerable differences in feeling between the two Departments. Nevertheless, all the managers in Engineering had some comments to make. Their view, however, was generally based on longer term assessments. As one manager noted, the first time he had experienced the threat of redundancy was back in 1971 and it had been a factor off and on ever since. Thus the views presented here, while emphasising the February redundancies, are a more overall opinion of redundancy in Massey than was found in the Finance Department.

5 managers felt that redundancy was handled adequately, or well by the company. One commented that there were always horror stories that should not detract from a difficult job well done. Another noted that although redundancies were well handled, sometimes the reasons for redundancy or the reasons for executing redundancies, which could be quite valid, were not always communicated very well even to those made redundant. Of the rest, the majority could not give an opinion on the handling of the recent redundancy because they felt they were too divorced from it, although 5 said they thought the redundancy was badly handled. This was mainly because of the length of time it was allowed to drag on and they felt it should have been more clean cut. These and the rest, however, did have opinions on the impact rather than the handling of redundancy, which, fairly obviously, was not seen as a good thing, although most accepted that savings, and consequently such actions, possibly, had to be taken if the company was to survive. Some were not sure that the right savings had been made, however. 6 maintained that the wrong people were made redundant and that generally there were too many lower grade employees made redundant when the opportunity might have been taken to remove more senior employees. 5 felt that their staff were still recovering from the redundancy and that morale, enthusiasm and motivation were low,

although 2 managers felt that enthusiasm had picked up because those remaining felt relieved that they had escaped redundancy. Nearly all the managers felt it was a depressing time.

## Finance

In addition to suffering a large reduction of staff, the Finance Department was almost completely reorganised in February. Few managers actually lost their jobs, but nearly all felt the impact of reduced clerical staff on their own jobs and most were affected in some way by the reorganisation.

Amongst the managers, the almost universal feeling was that the redundancy took too long. Many felt that this was, as a result, a particularly trying period, with feelings of frustration, low morale and insecurity fairly widespread. The company did not come out of it very well. To some extent it may partly have been a communication problem, as in Engineering where there were plenty of horror stories about the way employees were treated. These were often things people had heard about rather than had had first hand experience of, and whether true or not colour the attitudes of those who stay with the company. 2 managers felt the redundancies were humanely handled and my understanding was that the company tried to do this as much as possible. Indeed, the company may have been hoist by its own concern, in that while being very concerned about the direct labour force, the end result of long discussions with the blue collar unions was that the staff became increasingly frustrated. As one manager (Mr. B) who was not particularly pro trade unions commented, if the labour force had felt anything like the way he felt during the redundancy he could fully understand industrial action being taken.

The general lesson seemed to be that if redundancies had to be made they should be implemented a little more quickly and more clean cut. The problem was not the length of time in itself, but the length of time that went by without people knowing who was to be made redundant.

Redundancy talks started at the beginning of November of last year (1981) and went on to the end of February (1982) without any of the staff knowing, officially, who was to be retained.

## Job Insecurity and the Company's Future

### Engineering

As far as personal job insecurity is concerned, by far the majority of managers did not feel great personal job insecurity. (As one manager I interviewed retired shortly after the interview, he has been excluded from the following discussion). 3 Managers were very worried by their job situation. This was partly tied in to the future of the company which they felt would be one of further contraction. It was compounded by the feeling that jobs were very difficult to get outside. Some felt some insecurity but did not dwell on it, while 8 felt no insecurity, but were aware of the economic situation and were wary. By far the majority of managers were not looking outside for a job and those who were, were also concerned about factors such as career development etc., as much as job insecurity. Some felt that even if their posts went, their reputations would ensure that another job would be found for them, and some wished to stay with a company which was successful before, could be successful again and was something to which they could contribute.

With regard to the future of the company, again the majority (13) were optimistic about the future. It might be a different company after recession, but most felt the Coventry plant would survive. This was for a number of reasons, but the main one was the belief in the viability of the Banner Lane complex. 4, however, were not so optimistic.

### Finance

For Finance managers, on the other hand, job insecurity was a worry for 10 of them, while the other 10 either did not feel that their job

was insecure or were not worried by the consequences. Those not worried were usually younger managers who were mobile, or those with particular skills which were either of importance to the company or could be traded outside. One or two managers had just learnt to live with the company's state. Those who felt insecure did so for different reasons. The recent experience of redundancy had probably had the most impact. But these feelings were also tied in to feelings about the company's future. Feelings about the future tended overall, to be more pessimistic than in Engineering, but not necessarily because the company might collapse. The majority felt that the company would survive in some shape or form, but it was seen as contracting further and the possibility of it then growing further in the future was not considered to be great, which meant that opportunities would equally be restricted.

The effect of these three factors of redundancy, job insecurity and the company's future on the motivation of the managers is to some extent speculative. But the evidence suggests that for the majority in both departments, the effort they put in to their day to day jobs was not greatly affected one way or the other. This is not to argue that there were no consequences either for the individual's total approach to work, or for the company. But only one manager (Mr. A) actually said that he thought a protection against redundancy was to show you were a hard worker and to do your job competently. 2 did comment that with the best will in the world, the state of the company was bound to affect your enthusiasm, and clearly it would seem probable that in a contracting organisation there would be some feelings of worry and concern that will take the edge off someone's motivation. But the majority seemed to put the company's future out of their mind while doing their jobs from day to day, and just got on with it.

The approach seemed to be typified by Mr. B in Engineering who felt that it was like being in the trenches. If the bullet missed you and hit your friend you just thanked God and got on with the war. But it is one aspect along with some of the other factors that have been mentioned that must have a waring effect. As one manager commented,

people knuckle down but it is a more tense and heavy atmosphere. Mr. F saw uncertainty like a cloud hanging heavy over the Department.

Demoted Managers

One particular phenomenon that is perhaps unusual and deserves particular comment is in relation to demoted managers. There were 5 managers in the Finance Department who had been demoted in February (Mr. D,G,Q,R,T). Demotion in this sense did not mean, in four of the cases, any loss in material benefits (in the fifth case, Mr. T, there was no loss of pay but he lost his company car). The reduction was basically in terms of a job one position lower in the hierarchy. In Mr. R and T's case they had also lost the title of 'manager'.

These managers have similarities. They have all been with the company a fairly long time. (Mr. D, 18 years; G, 13 years; Q, 14 years; R, 15 years; T, 17 years) and they all have little if any academic or financial qualifications. They are all aged within six years of each other, between 35 and 40 years. None of them are sure they are being squeezed out. They have all come from sections which have been disbanded, so they could be seen as employees valued by the company, who despite the difficult circumstances have been retained, although admittedly in a lesser capacity. The reality, however, looks more bleak than this. They were all offered redundancy but did not take it because the redundancy pay was too low and because of the difficulties of finding another job from a position of redundancy. What seems more likely is that a company, proud of its treatment of its employees, is giving long serving, but basically unspecial employees, an easier way out of the company and some time to adjust and find another job. Although saying they were not sure they were being squeezed out some of the comments the managers made about their situation, noted below, would seem to suggest their real feelings were more in line with the notion that they were being eased out gently.

Mr. D felt that his job move was a smack in the face. He had been moved to a very frustrating job that was considered a backwater. The

job was concerned with accounts payable, which, of course, is concerned with paying suppliers etc. In a company that was in quite considerable debt, could have the financial plug pulled on it by the banks at any moment, and had considerable cash flow problems, a job dealing with creditors in these circumstances must be close to the worst in the company. It has no scope for original thought, has little status and a lot of frustration. Mr. D, who described his effort as patchy, could not really be seen to be in a strong position.

Mr. G, who described himself as an introvert, not very dynamic and not greatly concerned about his plight, accepted that the job he had at the moment was not very significant. He felt lucky to have a job given the circumstances.

Mr. Q, also felt he had been put into a backwater job, with loss of status and the loss of the potential for promotion. He thought he was doing well with the company, before the move.

Mr. R, who felt he was doing well was shocked when he was demoted. He had to swallow a lot of pride to stay with the company. He now works with staff who are junior to him and has a boss who he regards, at best, as a work colleague, not a boss. He feels uncomfortable at work and feels he is isolating himself. He feels his prospects are bleak in a contracting organisation.

Mr. T also had to swallow a lot of pride to stay with the company. He feels he has been badly treated and his loyalty to the company has been lost.

One of the most interesting aspects of this is either the inability of these managers to face reality or the refusal to let reality get them down. Mr. D and Q intended working harder to prove themselves, although an outside observer might feel it was a bit late in the day. Only Mr. T admitted to a conscious reduction in work effort. But all of them seemed to have very little future in a company that was almost certainly going to implement further redundancies. Moreover, things

did not look good outside either. The managers were all fairly old with no real qualifications in an area (the West Midlands) that, possibly, had suffered to a greater extent, relatively, than anywhere else as a result of the recession. None of them were highly marketable on paper and while at least Mr. Q and T knew this, and Mr. T felt it would take him a year to get a job, there still seemed to be a faint air of unreality about their positions. It was similar to being in an aeroplane that is flying straight towards a mountain and you know it is going to crash but you expect the mountain to move. It is, perhaps, ridiculous for me to imply that you can do anything else but retain some thread of optimism, or at least refuse to admit all is bleak. But a lack of 'reality' seemed to characterise many of the managers I spoke to not only in Massey, but in the other companies as well. Managers did not seem to be taking any obvious steps, except in one or two cases, to protect themselves against job loss. Like the person who never puts his seat belt on because he knows a crash will never happen to him, managers seemed to believe that executive redundancy was also an impossibility.

## Outside Work Factors

The influence of the family and other outside work factors on work has been less easy to establish in Massey. Nevertheless, there is some evidence of outside factors, particularly the family, having quite significant impact, especially amongst younger managers. In Finance, Mr. A,F,H,I,J,L,M felt that the family or lack of one, influenced what they saw as important at work. For Mr. A,I,L, pay and security were more important because of starting a family. Mr. F felt that the hours he put in at work were tempered by his family now, but promotion would also be assessed in terms of the demands it would make on his time with his family. Mr. J felt he could get £2,500 more in pay if he moved, but as he had no family commitments he did not feel that he needed to leave the company. Mr. M, whose wife left him last year and has fought two court cases for custody of his children, just wants to 'hang on' at work and although promoted in February sees work as very secondary to his domestic life.

Where the family has most impact, however, in a time of recession, is in restricting the mobility of individuals to seek jobs elsewhere. As many managers in both departments noted, their job considerations were greatly influenced by the difficulties of moving, which could be considerable. For instance, just trying to sell your house in a depressed area, like Coventry, could border on the impossible.

Political Activity

Similar to the difficulty of establishing the importance of people and interaction, to managers at work, noted earlier, trying to establish the extent of political activity also posed problems. This, however, was not so unexpected.

The reasons for the seeming reluctance of people to disclose information on such activity has been commented on before, both in many journals and earlier in this document. Some of the reasons for the reluctance in Massey, nevertheless, can still be speculated upon. Because interpersonal relations in both departments were fairly good it may be that repondents did not want to disclose activity that possibly had sordid overtones. It might have been that they were politically naive and not conscious of it, or that people just did not operate politically to any great extent.

The latter of these points, however, seems least likely, as those who did comment did seem to indicate that political tactics were in evidence. Mr. C, in Finance, for example, complained bitterly that promotion in the company depended on the blue-eyed-boy syndrome, that certain people in certain sections because they 'crawled' were more likely to get trips to Toronto, but that he was not prepared to engage in such tactics. He also felt there were two kinds of people in the company; those who worked 90% of the time and broadcast their achievements 10% of the time, and those who worked 10% of the time and told everyone about it 90% of the time. He felt the latter were much more successful. Mr. F in Finance and Mr. Q in Engineering both felt that

the higher you went in the organisation so political tactics became more important. They both also felt, however, that they lacked these.

Mr. O and B in Engineering were particularly forthcoming. Mr. O who was Chief Draughtsman, felt he had achieved that position and kept it for 10 years because he was ruthless and played outside the rules. He was looking for a successor who also had a ruthless streak. This ruthlessness consisted of a readiness to chop down anyone who was disloyal to you, but be prepared also to outmanoeuvre your opponents with cunning. To be ready to give an uppercut when it was least expected was most important, but you also had to be able to take the knocks yourself and come back fighting. Mr. O never appointed anyone to his section unless they had been recommended by one of his friends. Mr. B, on the other hand found, political tactics distasteful, but provided a good example of the indirect effects of recession influencing and heightening political activity. He was the Director's right hand man. The Director's very tight deadlines and the fear managers had of him, had created what Mr. B considered to be amazing behaviour. Managers were now fighting between themselves and haggling. They were also lying, cheating and backstabbing. He knew, for instance, that he had been blamed by other managers for their own inability to meet deadlines. They had told lies to the Director about him and had tried to do him down in the most naive way. He felt such tactics were distasteful and indeed, unseen in the Department before the Director arrived.

## The Relationship Between Satisfaction and Motivation

As I have pointed out earlier, my measurement of both work satisfaction and work motivation are very crude. Nevertheless, the Massey data reveals some interesting, although tentative, conclusions.

First, there seemed to be two types of overall satisfaction; satisfaction with the job and satisfaction with the organisation. Mr. P in Finance, for instance, was satisfied with the job, but not with pay

which he related to the organisation. Mr. D, on the other hand, was dissatisfied with both his job and the organisation, while Mr. I in Engineering was satisfied with the organisation but not his job.

Managers who say they work hard are more likely to say they are satisfied with their job and 11 in Finance and 12 in Engineering answered this way. But it is difficult to say whether this is coincidental or there is some relationship between the two. Presumably those who enjoy their jobs will have more enthusiasm and possibly put more effort in. However, there are also those who are satisfied and not motivated, and those who are dissatisfied and motivated. In Engineering, Mr. C,D and I, who say they are not satisfied and not particularly motivated, are not satisfied with their jobs rather than the organisation. In Finance, Mr. B and P who say they are not satisfied but motivated, are not satisfied with the organisation. But this cosy relationship that there seems to be between being motivated and being dissatisfied with the organisation and being demotivated and dissatisfied with the job is given a setback by Mr. H in Finance who is motivated but dissatisfied with the job rather than the organisation, and Mr. L in engineering who is satisfied with the job but not motivated. Moreover, the demotivated managers completely prevent any easy conclusions to be drawn.

## Overall Effects of Recession

Finally, an attempt is made here to look at the overall impact of recession on the individual managers in the two departments. Although there is some repetition here in what has gone before, nevertheless, there is some benefit in looking at the data from a broader perspective, which outweighs the slight degree of repetition.

In both departments in Massey, recession has had quite a considerable impact on the individuals. In the Finance Department the reduction in staff and the fact that the banks have asked for more detailed studies and more frequently, has meant longer hours and increased pressure.

In Engineering, the introduction of a Director to make the Department more efficient, which seems to have some relationship with the economic conditions outside, has also led to more pressure. In addition to this increased on-the-job pressure, there is also, in general, increased uncertainty of the future, either in terms of the company's future, or the manager's place within it, or both. Moreover, added to this is the difficulty, for most managers, of easily getting jobs outside in an industry that is suffering from overcapacity and in an area (the West Midlands) that has seen a considerable reduction in alternative opportunities.

The effect of this, to some extent, is curious. While most managers would admit, at least, to some worry over the company's future or their own job security, few seemed on the surface to let it affect their work effort. Two things in particular about this were interesting. The first was that in some cases, I felt their work effort was affected but managers did not put this down to uncertainty, although I believe it may have been a factor. The second was the optimism, which to some extent seemed naive, which underlay the explanations given by some of the managers for not being too worried by the economic conditions. Let me try and explain these aspects more fully.

In the Finance Department, a department that had recently undergone considerable change, with people working long hours, under some pressure and having first hand knowledge of the the company's financial position, it would be unusual if there were not some worries, annoyances and frustrations. However, there was a group of younger Finance managers (such as Mr. B,P,I), frustrated over pay and career prospects, who intended leaving the company and who argued that the whole of the Department was frustrated over these rewards, and that at least half the managers were registered with job agencies. I, in fact, found it difficult to sustain their argument of widespread dissatisfaction, in the interviews I conducted. I did not doubt the frustration some managers had over pay and that some people wanted to leave the company for reasons other than things like normal career moves etc. What was difficult to explain was why the younger managers

did feel frustrated over pay and why they wanted to leave the company for this reason. The take-home earnings of all the Finance managers did not seem to be uncompetitive and even if they were below the market rate, should not have engendered the frustration that was evident.

Although not frustrated, Mr. A, nevertheless, was a fairly typical example of the managers in the Department, and his circumstances did not generate the attitudes found in some of the others. With the company 3 years, after completing a business studies degree and aged 26, he was earning approximately £11,000 p.a.. This included substantial overtime payments, but as another manager pointed out, although other companies paid a higher basic rate, few offered overtime payments, yet expected managers to work outside their normal hours. Moreover, paying those managers who were frustrated with pay, more money, I do not think would have made them stay with the company. Although this is speculative, what seemed to have happened was that a dominant or cultural outlook towards certain factors seemed to have developed in some sections. These factors, such as pay, did not necessarily seem to be great difficulties in themselves, but seemed to have assumed importance because frustrations may have been generated by less tangible problems, and channelled into frustration with more tangible items. In Chubb, Mr. B had felt that the shopfloor now raised many more problems which they would not have bothered with before recession. What may have happened amongst some of the managers in Finance is that a culmination of factors - badly handled redundancy, changes in the company, uncertainty about the future of the company and the part the individual plays in it, the long hours and additional pressure - led some managers to feel they should try elsewhere, with pay as the medium of dissatisfaction and the excuse for exit. It is almost as if a threshold had been passed where one just feels that things might be better with another company. Objectively, it did not seem that things were better outside, especially in other manufacturing companies, but some managers may have felt they needed to find out. Interestingly enough, managers like Mr. A, who was not frustrated by his situation at the moment and who was not untypical of

those who were, was in a section that was on the periphery of the Finance Department liaising mainly with marketing staff.

The Finance managers considered above, were young, fairly well qualified and mobile. The managers in Engineering were the opposite and few had academic degrees. While they were all concerned about the future some of their optimism bordered not just on the unrealistic, but almost on the unreal. They all felt that Massey would contract, but many felt that the UK operations would survive and that Engineering and themselves would survive with it. There was very little of this kind of optimism in Finance. In Engineering, a number said it was likely that the company would be taken over, but none seemed to think that a takeover would threaten their positions. One manager felt secure because Toronto had given an assurance, three years ago, that engineering would be preserved. The manager, along with some others, did not seem to take account of the economic changes that had occurred over the last few years, or the fact that there were few new tractor developments or designs coming out of Massey. A number of companies have shut down their design engineering sections completely hoping to survive on their present products, which seemed to be what Massey was doing in reality, except that the company still had the burden of a large engineering department. A number of managers thought the company would be bailed out by the Government and another thought that the Tories would reflate the economy soon in view of an imminent general election and this would preserve the company.

Mr. J is perhaps typical. He was aware that the banks could pull the plug on the company at any minute and was aware that some engineering departments in other companies had gone completely. He understood that it was not easy to get a job in the West Midlands and family commitments prevented him moving easily. He was at BSA before and was made redundant. Despite this he remains in a peripheral job, which is more likely to be abolished in the future, yet refuses to try to move closer to the core jobs because he likes his present one. His instinct for preservation seems to be less than high.

For the most part, the Engineering managers put the uncertainty out of their minds and got on with the job. But it was different to Finance. There they seemed to put it out of their minds because they did not want to think of the consequences. In Engineering they put it out of their minds because it was not seen as a problem so much. Perhaps it is not a problem, but this kind of optimism also characterised the older, higher status managers in Chloride in much the same way. One reason that they were unaffected may have been because of LIFO in redundancy, although I would not have thought it always applied to managers, but I think it is mainly that these men felt they were big cats and there were plenty of kittens likely to suffer before them. I only hope that such complacency is not a characteristic of those responsible for the company's overall business strategy.

# CONCLUSIONS

## Introduction

In this section a number of things are attempted. First an attempt is made to draw overall conclusions from the three companies on the general effects of recession on organisations. After this an attempt is then made to more specifically draw conclusions from the data on the managers of the three companies in relation to the kinds of things that are motivationally of most importance. As a result of this, an attempt is made in the next chapter to suggest a possible alternative theoretical model to the one that was offered as a result of the review of the literature. Additionally, some attempt is also made to relate my findings to some of the conceptual and theoretical positions of other researchers. I begin, however, with some general comments about the effects of recession on organisations.

## The Effects of Recession and Contraction on Organisations

For the individual manager recession and contraction can not only be a time of misfortune, as with those managers demoted in Massey and the one in Chloride, but it can also be a time of opportunity with a number of managers in all three companies gaining, for instance, through promotion.

Recession and contraction seem to affect managers' jobs in various ways and while managers tended to suffer redundancy relatively lightly in relation to the rest of the workforce, nearly all felt some impact as a result of the changes their organisations were going through. The main affect is to change the manager's job in some way, often either in terms of working more quickly, or somehow coping with new deadlines and staff reduction. Even in Chubb, the least affected company, aspects such as the fact the company was forced to go for different kinds of orders for its safes meant that different kinds of production run and keener deadlines put more pressure on production

managers. For most managers it would seem that it is a period of increased pressure, although this is not necessarily something that all managers hate.

There may also be reorganisations in the company which, even if not affecting the manager directly, may have an indirect impact through the changes in other jobs. Additionally, there may be changes in senior management style which might inject a greater sense of urgency in to the way people work, but may also result in a more autocratic, less participative and generally harsher environment. This seemed evident in all three companies although to different degrees. In Chubb, while the Works Director maintained he had kept a dialogue with the unions and not 'rubbed their noses in it', the opinions of more junior management were very different to this. Perhaps Chloride with such as its clocking-on measures and distancing of the unions, had experienced the greatest tightening up, although the terror tactics used by the Engineering Director at Massey could not be described as a 'soft' management style. Certainly, in all companies, there was a greater cost consciousness felt by most people and sometimes a feeling that money, or the 'bottom line', had become more important than people, or anything else for that matter.

But recession will affect the individual not only in terms of physical job changes or reorganisation, but in less tangible, but nevertheless, important ways. Even if some managers feel their jobs are secure, there may still be worry about the company's future. Some may cope with this by just mentally putting it to one side, but few remain unaffected in some way and have to make some mental adjustment. Even older managers who felt their job was secure, still had to make some mental accomodation of the fact they would probably have fewer material rewards and they were unlikely to stay with the company until they were 65. To some this could be a bonus and very welcome, but for others this was not a particularly enjoyable realisation. For younger managers the future is much more worrying and especially for those with family responsibilities. Some attempt to reduce this uncertainty through the action of trying to find a job with another company. One would presume that if the search was successful the uncertainty would

be reduced, at least temporarily. However, lack of success and realisation of the difficulties of getting an outside job, one might speculate, is likely to increase uncertainty, and possibly increase worry and anxiety. Indeed, it seems likely that a whole host of factors are likely to have some influence; from the knowledge of the state of the company, to the threat of further redundancy (which at best means more disruption and worst the end of your job); from more job pressure, to longer hours; and from fewer material rewards, to fewer intrinsically satisfying experiences through job rotation or promotion.

Not to find high morale in companies in such circumstances would not seem to be unusual, although amongst managers there may be considerable resilience. This may be because they have suffered relatively lightly in terms of job loss, and feel they have better chances, relative to the rest of the workforce, of getting a job outside, or perhaps they are in a position to actually affect how the company performs and help improve that. Nevertheless, the companies do seem to have a particular cultural outlook that is difficult to define and explain adequately, but is very real and still affects managers. Managers who commented about the shop floor, in all three companies, felt that rumours about redundancy had replaced football or the television as the main topic of conversation. But in Massey, for instance, just travelling in the lift in the main office block I found that the general chatter was nearly always about the state of the company, or other companies like International Harvester (IH), or the changes in work patterns that were being experienced. The World Cup, for instance, was on at the time I was in the company, and I never heard it or any other outside event mentioned. Of course other events must have been mentioned, but what dominated was the company and its uncertain environment. Even jokes with the tea lady or in the canteen would be about things like whether they would all be eating there next week. While negotiating entry in to Massey, the senior managers I met would often joke about whether the company would be around long enough for me to finish my study, which seemed totally out of place. It felt similar to a politician actually saying that his was not necessarily the best party. Used to positive statements about 'being in a little difficulty but we will all pull through' type comments from company

representatives in the past, I found their self doubt almost jarring. The jokes may not have been altogether serious, but they were typical of the outlook that seemed to pervade the company as a whole, and in a way that it would be hard to imagine Massey employees thinking 5 years ago.

The cultural changes that companies seem to undergo in this state may be quite considerable and are perhaps highlighted by redundancy. None of the companies could deny that there would be further job losses, and in all three, rumours were thought by the managers to be rife about future redundancies. It never seemed to be one rumour, but different ones, few having much basis in reality, but which managed to keep most people including managers in some state of concern. In Massey, for instance, there were rumours about an autumn redundancy before the February one had been completed.

I did not collect any data while redundancies were being implemented. In Massey they had just finished, although my access negotiations were conducted while redundancies were taking place. Consequently, the following is based on retrospective comments which may have been affected by the passage of time. Nevertheless, no managers in any of the companies felt redundancy was an enjoyable experience. It seems redundancy affects a company for a long time. One manager said that first you have the rumours, then the redundancy, then the goodbyes, then 6 months later the resentment. Another talked of post-redundancy depresssion which occurs when people realised just what had happened to them, that they had not got the jobs they wanted, or their job conditions were worse. Even with a well handled, swift, clean-cut redundancy it could still last 6 months; with three months of speculation about it and three months to get over it.

The above comments are speculative, but it would seem that redundancy is a depressing time, with low morale and a great deal of disruption. One of the interesting things is that during a period of 'redundancy uncertainty', as happened in Massey from November to February when no one knew who was going to lose their jobs, none of the managers thought that clerical staff, for instance, worked harder in an effort

to preserve their positions. All those responsible for clerical staff said they had difficulty in motivating them and the feeling was one of, 'what is the point of working if you are going to be made redundant', rather than, 'I must work hard to show how good I am and increase my chances of being retained'. The explanations for this ranged from the general lack of moral fibre in society to the cushioning effect of the Welfare State. Certainly, the reaction is not similar to the reactions that are popularly believed to have marked the 1930s. Indeed, an interesting comment came from a Massey manager who felt that the pressure and hours were so great that redundancy might almost come as a relief to some clerical staff, and in Chubb, certainly some older employees would not have been too sad to have been made redundant.

Redundancy was seen generally as a short term expediency that was rarely well thought out. Often clerical staff, or usually production workers, bear the brunt of redundancy. Managers are thought to be more valuable, more flexible, more able and can do jobs below them, whereas clerical staff can not do jobs above them, or so the argument often runs. However, this is not always the case, nor does the removal of clerical staff, of course, mean the greatest cost saving. Moreover, leaving managers largely unscathed does not necessarily preserve harmony amongst them. Amongst the Finance managers and to some extent the Engineering managers at Massey there was some agreement that more managers should have been made redundant. There was disagreement on which managers should go, but there were some feelings of injustice at the extent of the clerical staff redundancies, as opposed to the very few managers who were compulsorily removed.

Many argued that Massey had become top heavy, but the consequences were greater than this. Many younger managers complained that the recession prevented managers from moving. This they felt was particularly true of older, unqualified managers, who some felt had been promoted in times of growth to positions that were really above them. Even if they wanted to get out they could not and this was certainly true of the demoted managers at Massey who were, consequently, felt to be blocking career prospects of younger managers. The end result was

that the people who are most likely to leave are the younger, qualified, marketable managers, who were not necessarily those who the company would be keen to see go. Thus the end product of a policy of trying to be lenient on managers could be a loss to the company in that the calibre and ability of those it ends up with might be lower than if it had tried to engineer the situation itself better. The contraction of the organisation, furthermore, prevented the company from recruiting better quality managers to replace any losses.

The main reaction of all the companies to recession has been to cut costs, which has taken the form, for instance, of manpower reductions and cuts in capital expenditure. In fact, the general approach is to make any cost savings that can be made. This, of course, would seem to be the rather obvious solution for companies making losses or less profit. It was also due to the fact that the main policies of Chloride and Massey were decided by the banks. On major policy decisions it seemed that very senior management had lost quite considerable overall decision making, although the evidence for this statement is rather indirect. Nevertheless, a number of the managers in both Chloride and Massey felt the only reason the company was taking the action it was taking, was because of the banks, as these actions were out of corporate character. The banks had become the total lifeline, but a lifeline that was also dependent on luck as much as anything else. For Massey, survival may merely depend on the fact that the dominant financier of the company is Barclays while for IH it is Midland. There is widespread acknowledgement that there is overcapacity in the industry which would be eased considerably by one of these two companies going bankrupt. The speculation, and this would not seem too implausible, is that as both companies are separately financed, one bank is hoping that the other company will go under. If they had both been financed by the same bank, there would have been, in the absence of national political intervention, much greater contraction, if not a complete end, to the trading of one of the companies.

It would not be difficult to understand that under these circumstances a company would emphasise the short term and would pay less attention

to the longer term prospects of the company. However, this can have employee consequences, not just in terms of the impact of redundancy, but in terms of the lack of any coherent future plan, the lack of any new products in the design stage, or the lack of capital investment to produce these products, giving rise to greater uncertainty. The obvious question some managers were asking was, so you implement the financial stringencies and you manage to get the company back to profitability, but what then? To have no new products, for instance, in Massey-Ferguson for 1984 or 1985 would seem to be long term commercial disaster when the Japanese are penetrating the tractor market in styles reminiscent of the motor cycle industry. Some managers accepted that there was, to some extent, a vicious circle; no cash therefore no investment in new products, but no new products meant no cash. But this was not a reasoning that increased confidence.

The overall policy of senior management was not as clear cut as the cost reduction approach I have implied. As noted, managers in the companies felt that little thought had been given, either to what the company intended making after the recession, or where they would get the facilities from to produce the new products they had, but the companies were not operating a straightforward cost cutting exercise. If they had been, it might have been less damaging in human terms. Those concerned with design engineering in all companies complained of the chopping and changing of senior management and the lack of any coherent strategy or plan. In Massey this was perhaps causing greater frustrations than anything else. It seemed that in addition to all the other problems and changes managers had had to endure, senior management were throwing in a further joker by having no idea where they were going and indirectly communicating this to everyone through their constant changes of mind. This was compounded, to some extent, by a certain lack of faith amongst middle managers in the ability of senior management, which was based on the past, and often proffered as one of the main reasons the companies were in a mess now. Chubb was just beginning to recover from a financially disasterous flirtation with electronic cash dispensers. Massey overstreched itself by trying to compete with Caterpillar. It also went into uncertain markets. Perhaps what was additionally frustrating at Massey was that Banner

Lane, which had been highly profitable in the 1970s, saw little reinvestment. But the story was similar at Chloride. Michael Edwards' empire building activities and his unprofitable ventures into the United States, and especially his lack of reinvestment into the once highly profitable CPS site, were considered by some Chloride managers to be at least half the reason for the company's present distress.

There are, of course, a whole host of minor consequences that result from the economic conditions. In some companies there may be a deliberate attempt to increase political activity to improve efficiency, which might be politely called competitiveness. It was felt that at Massey, the reorganisation from country units to functional units with an executive over each was an attempt to introduce this. This may be difficult to establish, but in a company that is cost conscious, to begin the practice of publishing cost data for each function must at least engender some 'healthy competition' between executives. But sharper practices may also creep in to a company fighting for survival. Like the practice of not publishing your accounts until they are so out of date they become meaningless, and the company can then make a statement to this effect and tell everyone to ignore them. Or developing and designing a component with a subcontractor, who thinks he will manufacture the component, only to give the contract to the cheapest producer after development has been completed and the original contracter has added in to his production cost estimate an element for design, which makes him more expensive that anyone else. Or producing things that have not had prototypes made of them, or producing in circumstances that contravene the health and safety regulations, or more dangerously producing and selling goods that have not been fully tested. Increases in 'political activity' seem mild by comparison.

However, I doubt that these are widespread practices within companies, although as recession continues they may increase, and other practices may occur as these become morally acceptable merely through time. But the problem, in fact, would not seem to be that companies adapt to the economic circumstances in dubious ways, but that they have difficulty in adapting quick enough, or in anything other than a piecemeal fashion. None of the companies seemed to have come to grips with the

fact that they were no longer the giants of 10 years ago. It was in trying not to let go of their old status and position, rather than fully clarifying what their new position might be, that made one leave with a feeling that if the companies did survive it would be due much more to the whims of fate rather than to any brilliant strategies on their part.

## Influences on Work Behaviour

In this section, I attempt to draw overall conclusions about the kinds of things that influence the work behaviour of managers in organisations in difficult trading circumstances. It is an attempt to highlight factors which transcend the specific circumstances of the particular organisations and may be of general applicability.

### Pay

Pay would not seem to be a day-to-day motivator from the statements of the managers. There are some who feel it would affect their job effort, but these are very much a minority, and a number, although dissatisfied with pay, maintained that their effort was not reduced as a result of this. It is an important factor at work, but in the main, is one factor amongst a number seen by managers as important. Its main impact would seem to be in terms of whether an individual stays or leaves the company.

Pay does seem to have some of the qualities of a hygiene factor in the Herzberg sense; it would not seem generally to be a positive motivator. But neither does it seem to be a great demotivator as a result of dissatisfaction with it. Its main influence seems to be to motivate to look outside the company and possibly leave, but in many cases this is seen by the individual in relation to a number of other factors.

The emphasis placed on pay by the individual depends on a lot of things, but it does not seem to be related to events like pay rounds, in the sense that Daniel argues it is with blue collar workers. The kinds of factors that seem to be important in evaluating pay are the fairly obvious elements of material needs and reflection of personal worth, as well as a comparison with such things as market rates, inflation and the pay of other managers.

It would seem likely that where pay is seen as important by a manager and he is unable to move to another job, as in a time of recession, there will be an affect on day-to-day motivation, but to what extent is difficult to say. It would certainly seem to affect enthusiasm, but there seems to be a certain amount of 'realism' amongst managers affected by recession, in the sense that many managers have adapted and lowered their expectations, to some extent, on pay and promotion. It would seem likely that this will occur also in the case of those who are currently frustrated with pay and unable to get jobs elsewhere. But as there were, perhaps 4 managers, out of the total of 57 who could be described as intrinsically orientated, and came to work purely for material reward, the problem would not seem to be great. It would be wrong, of course, to imply from this that pay is not important, but in terms of day-to-day motivation it is not of dominant significance.

## Promotion

Promotion, in terms of motivation, also seems to have similar characteristics to that of pay, although its consequences are less easy to establish because so many of the managers I interviewed were older men and already, in many cases, at a 'reasonable' level in the hierarchy. Nevertheless, in general, it would seem that the main consequence of frustration with promotional opportunities is to motivate the individual to look elsewhere. However, there are three additional important aspects related to promotion. The first is that promotion usually carries with it more rewards than pay. Along with promotion often goes not only more pay, but also more responsibility, authority and

power, more interest, variety and autonomy. Thus promotion has both extrinsic rewards and the possibility of greater intrinsic reward. It also carries the much more visible acknowledgement than pay, that the company values the individual.

The second aspect, and this may be a consequence of the first, that distinguishes promotion from pay is, that promotion is of greater concern to more managers. As noted in earlier sections, age and level in the hierarchy are modifying factors and not everyone, even lower down, wants promotion. But even allowing for these points, promotion would seem to be of more concern to managers than pay. Thirdly, there may be a distincion between blocked promotion opportunities as found in contracting organisations and being 'passed over' for promotion. Blocked promotion opportunities would seem for the most part, to motivate managers to leave the company. Being 'passed over' on the other hand, with its implication for your self worth, lost future potential (not only with your present company, but also with outside companies), and negative evaluation of you by the company, may affect day-to-day motivation much more.

The study does not contain enough managers in this situation to draw any firm conclusions, but where managers have been demoted or passed over, the reduction or increase in effort has been more easily identified and commented on by the manager. Moreover, and while this is a rather subjective assessment, nevertheless, all those who had recently been promoted displayed, at least, enthusiasm for their jobs. Of course, they may just be enthusiastic people, which may be one of the reasons why they were promoted at a time of organisational contraction, but this cannot be the whole reason as some admitted displaying boredom or dissatisfaction in their previous jobs. It would not seem unlikely that promotion and its positive evaluation of the individual should lead, at least in the short term, to greater day to day work effort. The argument here is that it is the impact promotion has on the individual's own self evaluation that affects his effort. This might be the distinguishing feature why promotion, on the surface, has a greater impact than pay on day to day motivation. I did not look for it in the present study, but the conclusion from this would be

that where pay was seen in feedback terms, as an evaluation of self worth, rather than for material needs alone, an increase in pay would have a greater impact on work effort.

Nevertheless, while of greater concern than pay on the data I have gathered, promotion cannot really be seen as the most dominant motivational factor amongst managers.

Self Worth, Job Content & Autonomy

Self worth, job content and autonomy seem to be the most significant factors in relation to manager effort. They were not prime motivators in every case, but were mentioned so consistently that even if not of most importance in every case, seem to be of some importance to all managers. Managers lower down the scale would seem to desire more guidance, greater boss involvement and clearer guidelines than those further up the scale, but independence to operate in your own way, was of significance in almost every case. Only in 4 cases did managers feel that one of the reasons for the reduction in their effort could be, or was due to, a lack of close supervision. This is not to argue that unbridled freedom without any control is therefore the ideal, but broad objectives with regular but not constant review would seem to be of general importance.

Job content is also of general importance. Most managers talked in terms of wanting variety, interest, challenge, a significant job etc.. The trouble with this, of course, is that what is of variety, interest, challenge etc, to a finance manager may be completely different to what a design engineer means by these concepts. At the moment I have not really made much attempt to establish what these concepts mean to different managers although some effort was made to explore what managers meant by challenging work. Nevertheless, the area seems to be important and would seem to be one that should be developed further.

Also important, but equally insufficiently explored in the study so far, is the notion of self image or self worth. Again, the area did

seem to be of considerable significance, and a person's own self worth, or self evaluation or self standards seemed to offer explanations for work practices that might be considered unusual. For instance, a persons own self image and standards were given as a reason by a number of managers for continuing to work hard despite frustrations with the more obvious external rewards. But in circumstances where the external rewards are not a source of dissatisfaction, it would seem to be the notion of 'doing a good job' and being seen as being competent and able that is of some significance. Establishing who significant others are, how they are evaluated, why they are seen as important, what kinds of personal standards a person uses and how he evaluates these would also seem to be an area that might be further developed.

These, to some extent, would seem to be core factors. Others like pay and promotion may be important to some people some of the time or may affect the notions of self worth (for instance, pay seen as feedback of the company's evaluation of you), but would seem to be variables that can be added or subtracted from the core elements depending on the individual. One might also see other elements such as relatedness at work and self actualisation in the same light - important to some people, but more, variables that can be added or subtracted from the core concepts depending on the individual. The evidence from this research would seem to support the suggestion that self growth and people relatedness are possibly of less general importance than was first thought.

## Self Actualisation or Growth

If we consider self actualisation or growth first, which was seen in my conclusions from the literature as one of three broad main motivational categorisations (along with relatedness and existence factors) there would seem to be very little evidence in this study that this is of great significance to many managers. It is to some, but the majority, at best, only consider it of limited significance and a by-product of work rather than a positive motivator. It would not seem

to warrant the significance given to it as a result of my earlier conclusions from the literature. It may be that its significance has been reduced by the limited opportunities of recession and contraction. But from the statements of the managers this would not necessarily seem to be the main reason. What may be the case is that the control and restrictions demanded by organisations, even for managers who have relatively great freedom in comparison with the majority of the workforce, prevent self actualisation to any great extent. Clearly, more data is needed to establish this argument.

## People Relatedness

As I pointed out in my assessment of the Massey data, this was a difficult area to pin down. Overall it is possible to distinguish between managers who lay emphasis particularly on contact with people in a personal sense, those who emphasised the exchange of ideas, those who emphasised motivating/teaching people, and those who emphasised controlling them. To some people the factors are important, and it is true that because good relationships in all three companies seemed to be the norm, establishing the importance of relatedness is difficult. It might not easily be detected or become salient unless it was possible to investigate a company that had a lot of aggression or mutual distrust, or little cooperation amongst members, which despite some possible increase in political activity is, nevertheless, not a general characteristic of the companies I investigated.

The evidence I have to go on, although admittedly from a small study, is that relatedness is not a dominant factor in the same way that 'job content' may be (although, clearly, contact with people may be part of an evaluation of whether a job is good or bad). Again, it is important to some managers who made a point of emphasising it, but in organisations where relations are not particularly fractious it does not seem to be generally emphasised, and might be seen as an important factor that can be added or subtracted from the main factors depending on the individual, but not warranting a separate categorisation.

Insecurity and the Company's Future

Insecurity, either in relation to one's own job or the company's future, is a difficult factor to assess. Most managers in the 3 organisations are concerned about the future and some are very worried. Older managers tend not to be so worried, but are affected to some extent, and contraction seems to be a factor that at least forces people to review their positions, even if they then come to the conclusion they do not need to worry.

No managers want insecurity, although 3 or 4 said they would not mind redundancy. It would seem, rather obviously, that redundancy depends not on whether you lose your job, but the consequences of that. If it is your only source of livelihood and you have family commitments, or a great desire for material wealth, and moreover, the chances of getting another job are slim, then losing your job will mean insecurity. If, on the other hand, you have a Navy pension, or a private income, or enough service with the company to know you will get reasonable redundancy pay or pension, then losing your job does not mean insecurity. In some cases it may be a relief, an 'official' excuse to do things that are more enjoyable. But it is not a factor, where, if it is a cause of concern, some sort of explanation of its affect on work behaviour can be given in the same way, promotion or job content can. It has similarities with pay. You may leave one company and go to another in order to releave the insecurity, and like pay, it would not seem overall to be a positive motivator, contrary to what I suggested in an earlier analysis. It does not seem to cause you to work harder because you have got it, but, of course, the important question and the difficult one, is how people react when they feel insecure. The data would seem to suggest that the end result is even more complicated than with the other factors considered in the study. Insecurity may affect effort, either positively or negatively, for which I have no real explanation at the moment. A complication is the speculative notion I raised in an earlier section, that it may have a subconscious effect and may give rise to frustrations with other factors, as with the junior finance managers in Massey and the shopfloor workers in Chubb.

## Other Factors

Other factors that would seem to be of importance to some people are things like feedback, skill development, the leadership of the company and the way it is run. An aspect that also influences the work behaviour of some managers is family commitments. These would seem to influence managers to different degrees at different times in their life. Clearly, such commitments, if onerous, will affect what you see as important at work and what you want to get out of it. But while such factors and your own personal values will affect your orientation to work, the situation is much less clear cut for managers than it was for Goldthorpe and his blue collar workers. For a start off, expectations of the kinds of rewards must be much greater, merely because there are more rewards, especially intrinsic rewards, available. There may be some kind of categorisation that can be made of the work orientation of managers, but it is not easily constituted at the moment on the data I have gathered.

Again these 'other' factors are important to some managers, but possibly not of significance to everyone and may be best seen in a model as contributing to the work motivations of some managers, but not of core significance.

# APPENDIX 7.1

## MAIN STUDY INTERVIEW DATA

# APPENDIX 7.1

# MAIN STUDY INTERVIEW DATA

## A) SANDVIK

### Introduction

Sandvik UK is a wholly owned subsidiary of Sandvik AB, which has its headquarters in Sweden.

Sandvik AB is engaged worldwide in the manufacture and marketing of specialised steels, hand tools, cemented carbide products and process systems. The parent company has a turnover of approximately £800 million worldwide, and employs some 30,000 people, of whom slightly more than half are employed outside Sweden. In total, the group incorporates 85 companies spread over 35 countries. The company has a long history. Founded in 1862 by Goransson, the company was the first to make steel on a commercial scale using the Bessemer process.

### Sandvik UK

Sandvik UK was founded in this country in 1914 and was the first subsidiary to be set up outside Sweden. In 1982 it had a turnover of approximately £80 million and employed just over 2,000 people.

The UK group consists of Sandvik Ltd, with four main operating divisions - Metal Working Products (CMP), Saws and Tools, Steel, and Wimet Ltd - plus a central services division. There are also five subsidiary companies coordinated at board level.

Of the total UK turnover, CMP contributes £35 million, Saws and Tools (including a subsidiary, Aven Ltd) contributes £15 million, and Steel

£10 million. The remaining £20 million comes from the smaller subsidiaries. Some 15% of total turnover is based on items manufactured within the UK and 85% comes from items imported from Sweden. Consequently, the company is orientated to marketing activites.

The UK company experienced rapid growth during the 1960s and 1970s. In 1975 it acquired Wimet Ltd, and in 1979 Aven Ltd. However, in the last 3 years the company has met with severe recession in the markets in which it operates. Since 1979, the UK workforce has declined from approximately 3,000 employees to just over 2,000 with a major redundancy programme in June of last year (1982). The company's operating locations have been rationalised from 41 sites to 6, over the same period.

Most of the rationalisation and redundancy has been carried out with little publicity and not too much trouble. The company puts this down to good handling and an enlightened approach, and considers that it leads the head office in its approach in some areas. However, some managers think the relatively trouble free reorganisation is due more to the moderation of the union leadership, and more difficulties would have been encountered with a less pliable union. Moreover, the personnel manager admitted that some particular difficulties were experienced with some subsidiaries. Wimet, for instance, had an 'old style Coventry' management who resisted Sandvik's attempt to revitalise them. It took over 5 years to integrate Wimet into the company and it was felt that if the recession could have been foreseen, Wimet would never have been acquired. Nevertheless, the company is seen, in general, by its managers to be a fairly good company to work for in terms of its treatment of employees, its products and its general business approach.

The Personnel Manager felt there was some jealousy between the divisions. Whether divisions were allowed to engage in, for instance, sales displays or promotions, other than the bare necessity, depended on their profitability. Only Saws and Tools were profitable (CMP were breaking even, and Steel and Wimet were making a loss). Nevertheless,

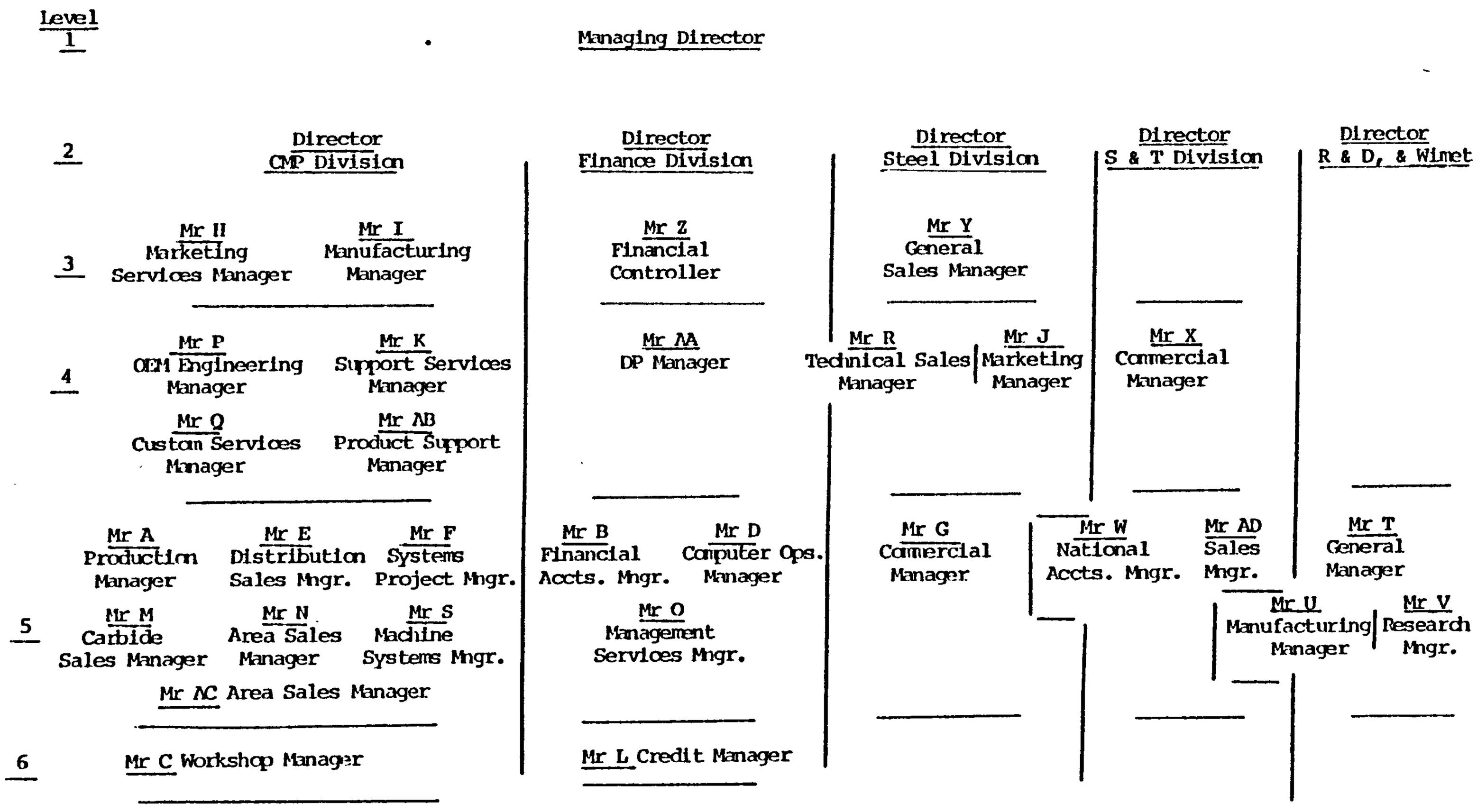
the company was continuing to invest where it thought it was necessary. Wimet, which had made a loss last year, continued to benefit from investment in new machine tools.

Although it is thought that the major reorganisations of the company are now over, further changes are still likely. During the period of interviewing there were a few more people (3) made redundant. The company may just return a profit this year but is unlikely to do much better than this. There is unlikely to be much growth in any of the company's trading markets, and the main thrust will be in trying to take market share from others. Although the company gave a 5% pay increase in May of last year (1982) it is possible there will be a nil award this year.

Interviews

30 managers were interviewed in total. Of these, 14 were from CMP division, 4 from Steel, 3 from Saws and Tools, 2 from Wimet Ltd, 6 from Finance, and one manager from R & D. Except for Finance and R & D, the other functions transcend the divisions. Thus in terms of function, 9 managers were in production or allied fields, or had had most of their recent work experience in this area, 11 managers were in marketing, sales or administration, 4 were engaged in engineering or research and technical development, and 6 in finance. This breakdown, along with an outline of the hierarchical level of each manager, is shown in diagrams 5 and 6 following.

## SANDVIK ORGANISATION STRUCTURE SHOWING APPROXIMATE POSITIONS IN THE HIERARCHY OF THOSE INTERVIEWED




(Note: Only the level and not the relationship between Managers is shown)

DIAGRAM 5

## SANDVIK ORGANISATION SHOWING MANAGERS IN TERMS OF THE FUNCTION

| Level | Production & Allied Fields | Marketing, Sales & Administration | Engineering & Research | Finance |
|---|---|---|---|---|
| 3 | Mr I (CMP) | Mr Y (Steel) Mr H (CMP) | | Mr Z |
| 4 | Mr K (CMP) Mr P (CMP) Mr AB (CMP) | Mr J (Steel) Mr X (S & T) | Mr Q (CMP) Mr R (Steel) | Mr AA |
| 5 | Mr A (CMP) Mr F (CMP) Mr T (Wimet) Mr U (Wimet) | Mr E (CMP) Mr M (CMP) Mr N (CMP) Mr AC (CMP) Mr W (S & T) Mr AD (S & T) Mr G (Steel) | Mr S (CMP) Mr V (R & D) | Mr B Mr D Mr O |
| 6 | Mr C (CMP) | | | Mr L |

DIAGRAM 6

## Analysis

### Introduction

The analysis of the Sandvik data follows along the same lines as those taken with Massey Ferguson. The main areas considered are; promotion; pay; job content and satisfaction; feedback and appraisal; autonomy, work objectives and decision making; job security; redundancy and rationalisation; ratings of performance and effort; self actualisation; the central importance of work; and divisional differences.

### Promotion

Perhaps the most noticeable thing about feelings towards promotion in the company, was that they seemed more closely tied to age differences than the other factors. Of the 30 managers, 11 (managers A,C,E,H,M, N,S,T,X,AB,AC) were not particularly concerned about promotion. This is either because they were not promotion conscious and content with their hierarchical positions, or because they were realistic and knew they would not get higher. These managers tended to be older and mainly in their 40s and 50s, although there were a couple of managers in their late 30s who did not see promotion as being particularly important. Of the remainder, 10 (B,J,L,O,P,Q,R,Y,Z,AA) might be described as being ambitious in promotional terms. This does not mean to say that they were ruthless climbers, but that promotion was important to them and they were concerned to go as far as they could in an organisation. The majority of these were in their early to mid 30s, although a few were a little older. 4 more managers (F,K,U,AD) would still like to get one position higher, while another 5 (D,G,I,V,W), felt that promotion was important, but they were more concerned about getting to grips with their present jobs first, and then looking for further advancement. These 5 managers are all in their 30s.

Perhaps the important point about this is not necessarily that younger managers tend to want to get ahead more than older managers, but that they believe they are able to. Of the managers still seeing promotion as important, about half still saw opportunities within the company. Not everyone was content, but there was no widespread dissatisfaction with promotion opportunities, and those who felt they would have to move to get higher did not seem to be particularly annoyed or frustrated at this.

Pay

For by far the majority of managers, pay was not a source of dissatisfaction. 2 managers (S,AB) were actually dissatisfied with their pay, but even for these it would not seem to affect their day to day effort and approach to work, or their commitment to the company. One more manager (D) felt that pay was a problem amongst other managers, although this manager was satisfied at the moment, and in fact, I found little evidence of dissatisfaction with pay. For approximately 7 or 8 managers it was not even the most important factor at work. Obviously, few managers would refuse more pay, and this is not to argue that pay is of some importance to nearly all managers, but for these latter it was not given overriding priority.

There are a number of possible reasons for the lack of frustration with pay. Some managers had sufficient for their needs, and only saw pay in terms of material benefits alone, although there were relatively few of these. Others saw it either as a reflection of their worth to the company (B,G,H,K,Q,R,Z), or as a reflection of responsibility (J,X,AB) or as a reflection of performance. Most felt they were rewarded appropriately. But also important was the notion of fairness and that pay should either be in line with market rates, or not too far below them, or roughly in line with what managers with similar work and responsibility in Sandvik were thought to be receiving. At least half of the managers used some sort of general comparison in considering whether they were adequately paid, (A,D,F,G, K,N,O,P,Q,R,U,V,Y,AB).

Where there were some feelings of dissatisfaction, and also evidence that there might be more dissatisfaction in the future, was in relation to these notions of responsibility, performance and fairness. A handful of managers (e.g. B,Z,AB), who felt that they had been working particularly hard, expected to be compensated for it in the next pay round. These feelings had risen because they either felt they had worked longer and harder than others, or because they felt they or their staff, had taken on more responsibility. It was also related to what they thought they could command in the market.

The fringe benefits seemed to be generally acceptable to the managers. One interesting anomaly was that there was obvious annoyance among finance managers that they were the only managers who did not receive company cars, but it was not something likely to lead to resignation. Perhaps this is because one anomoly is probably tolerable, especially if other things like pay are generally acceptable, but a number of them allowed to creep into the system may cause frustration. At that moment there was no evidence of 'considerable frustration' in the company.

Job Content and Satisfaction

By far the majority of managers were satisfied with their jobs and only 2 (F,K), possibly 3 (AA), would prefer to be doing something else. This is not to argue that the other 27 were satisfied with all aspects of their jobs, but for the most part, taking managers jobs overall, there was generally a great deal of satisfaction. The fact that, in general, jobs were challenging, had variety and were interesting was important to even those manager more concerned with pay. Few would do, or were doing, jobs they actively disliked overall. Also important, especially for younger managers, was whether the job was broadening the individual's range of skills and experience so that he was becoming more 'rounded'. There were 4 or 5 managers (B,C,M,Z), at least, who could fairly easily command better paid jobs. Yet they remained at the company, partly because they got a great deal

of satisfaction from their jobs, or, as with some younger managers, because the experience they were gaining was valuable. Another, more general, factor was that the company was seen as a good company to work for; go-ahead, flexible, efficient and to some extent enlightened. There were problems, but nobody saw the company in any kind of bad light overall.

With regard to motivation, again, in very broad terms, the day to day effort of the managers was most likely to be affected by his immediate job environment, and by his own self concept or personal image of himself, rather than by pay or promotion, although in view of the lack of frustration over pay and promotion in the company it is impossible to draw any firm conclusions on this. Nevertheless, a large number of managers said they were hard working (elaborated on further, later) and this seemed to be partly related to the content of the job and the satisfaction to be got from it, but also partly related to their own self concept and notions of pride. To be seen to be doing a job well, to do jobs to the best of one's ability, (and in some cases regardless of whether this had implications for promotion etc) were often offered by managers as reasons for their particular approaches to work, (A,B,C,E,G,H,K,O,Q,V,W). But other things, like the urge to succeed (P,Z) and fear of failure (Y,AA) were also offered by managers, which have some relationship with self concept.

An additional reason for managers working hard was also that there was just more to do, and again it would seem plausible that managers respond to this partly because of pride and partly because of the satisfaction of achievement. A lot of managers felt under pressure, but this did not seem to have reached a critical level for the most part. Indeed, several enjoyed being pressurised, (D,X,Z,AC).

## Feedback and Appraisal

With regard to feedback on work performance, for some managers, meeting their own internal standards of performance was feedback

enough, (e.g. E,T). Others, and in Sandvik's case the majority, needed some form of external recognition. About 6 or so managers felt they got this external recognition, or feedback, through the percentage increase in pay they got. This, of course, was not particularly surprising as the appraisal system seemed to be directly tied to it. Nevertheless, many managers felt they needed a little more elaboration than drawing conclusions from the pay system. Most managers felt they had at least a reasonable working relationship with their boss. Not all, however, were happy with the feedback on their performance. 14 managers (A,B,F,G,K,N,O,Q,R,W,X,Y,Z,AA,AC) felt they would appreciate more informal encouragement, or even disencouragement if appropriate. The feelings amongst these managers varied considerably from feeling that feedback was quite important to them and the absence of it, or the wrong type, reduced their effectiveness, to something along the lines of 'I don't get feedback very often, I would like more, but no news is good news'. The majority were somewhere in the middle of these two, feeling that a little more feedback could have a positive effect on their work approach. A small number of managers thought that pay considerations and appraisal might be better separated.

Management Development and Training

Somewhat related to the appraisal system, as appraisal can be a way of identifying a manager's weaknesses and needs, is training and development. A number of managers mentioned that they wanted to develop specific skills or knowledge of some sort, such as computer applications, but there was no common theme. A few commented on the absence of any noticeable formal management development programme, or of succession planning or of training in the management of staff, but these were not overwhelming concerns for most managers.

One of the reasons why these were not overwhelming concerns, may have been due to managers being aware of a forthcoming programme at Cranfield that they were to attend. But I believe it may also be partly due to the managers not being fully aware of the ways they

could benefit from such training, and partly because of the company's acceptance, rather than overt policy, of lateral job moves. The fact that a lot of managers had the opportunity to move into associated areas, I think, was quite significant as it gave them the opportunity to gain fresh experience, prevented them going stale and also assisted in providing them with a broader learning by experience.

Autonomy, Work Objectives & Decision Making

Autonomy was important to all the managers, although, of course, to different degrees. By far the majority (20) (A,C,D,E,G,H,J,L,N,P,R,S, U,V,W,Y,Z,AA,AB,AC), were happy with the freedom they got. These managers, for the most part, were also clear about their work objectives. 5 (F,M,P,A,B) felt their objectives could be more clearly defined, or their boss should give them clearer guidelines, but in only 3 cases was this a real concern. 4 managers (T,I,O,X) felt they were too narrowly constrained.

Related to this last point, but slightly separate, is the fact that 7 more managers (H,B,D,X,Y,R,Z) and one of the above (O), wanted greater involvement in decision making. This usually took the form of wanting to be informed earlier of decisions that were likely to impact on their area, so they would have at least some say before the decision became a 'fait accompli'. This was possibly more a problem of communications than one of a lack of democracy, as few managers, felt that their views were discouraged, or they were not allowed to express themselves. But in at least 2 cases (B,O) the main thing that would most likely make the manager leave the company would be decisions that they considered difficult to defend and which they had no part in making.

There did not seem to be any particular pattern regarding those managers who wanted greater involvement in decision making or clearer objectives, although there was a predominance of managers (B,D,Z,O) from the Finance division who were looking for more decision involvement.

Job Security, Redundancy & Rationalisation

With regard to job security there were three main categories into which managers fell. The first relates to managers who felt no personal job insecurity, either because of their marketability or because of their own feelings of worth and self sufficiency. 14 of the managers fitted into this category, (A,B,C,D,E,H,I,S,T,U,V,Z,AB,AC). The second related to those who felt some insecurity, but who put it to the back of their mind. 5 managers felt this way. Thirdly, there were those managers who felt insecure and who felt it had affected them in some way. This applied to 11 managers, (F,G,L,M,N,R,W,Y, X,AA,AD). This feeling of insecurity seemed to have various outcomes. The most common effect, perhaps, seemed to be for managers to work harder, (as with N and X), which might not necessarily protect them, but at least, they felt, salved their conscience. Some tried to make themselves less financialy dependent (H), others had become more aware of outside job opportunities, although few people actually wanted to leave the company. There were managers, of course, aware of outside opportunities partly because of frustration with their particular jobs, but more usually because of normal career progression (e.g. G,L,Y). But none wanted to leave because of insecurity. In fact, there were about 6 or 7 managers who had had offers in the recent past, or felt that they could do as well outside, but preferred to stay with the company, although length of service played a part here, (as with C and M, who both had job offers recently, but after 23 and 22 years, respectively, in the company, found it difficult to move).

Feelings of insecurity seemed to have some tentative relationship to the outside environment, in terms of the division a manger was in. The managers feeling no insecurity whatsoever, (A,B,C,D,H,I,J,O,Q,S,T, U,V,Z,AC), were to be found in CMP (mainly production), Wimet (again mainly production) and the Finance division. Only one manager is in another division (J). However, managers for instance, in the Steel Division, obviously aware of the difficulties of the industry were more 'concerned', although as a group they did not seem to display greater personal insecurity than other divisions. Even so, one of the

individuals who was perhaps one of the most worried about insecurity (G) was in Steel, with a work experience in selling steel, and no marketable qualifications.

Again in relation to the outside environment, job insecurity seemed to have some relationship with whether a manager felt he would be able to find another job outside the company without too much difficulty. Of the 21 managers who commented on outside job chances, 14 said they did not think they would have much difficulty in getting a job, or that it did not matter. Of these, 4 managers (M,R,Y,AA), felt some insecurity and two of these, (Y,AA), felt insecure more because of a fear of failure than economic recession. Of the remaining 7 (F,G,L,O,W,X,AD) who felt they would have difficulty in getting a job, all felt job insecurity, except for manager O. The only significant thing about him was that he worked in Finance, and the reason he felt he would not get a job outside was because of age, which may not necessarily be tied to recession.

A factor that had not revealed itself before, or I had not detected it, was that feelings of job insecurity seem to have some relationship with age, although not necessarily with hierarchy. Of the 13 managers who said they felt job insecurity, 10 fell in the age range 38 to 45. Of the other 3, AA who is 34 felt insecure because of fear of failure. AD (36) felt insecure because the higher you go in an organisation the more politics become important, and therefore in his eyes, the more insecure the job is. The other manager, who is 33, is G from Steel, mentioned above.

The 17 managers who did not feel insecure were predominantly much older or younger men. None of the 6 managers over 50 felt insecure. 9 of the remainder were between 29 and 39. The remaining two (H,S), were in their 40s (41 and 42), although both felt they would have no difficulty in getting a job outside.

With regard to rationalisation and redundancy, feelings were to some extent mixed. Of the 26 managers who commented on the reorganisations

that had taken place in the company over the past year or so, 17 felt that the rationalisation and redundancies had been well handled. Some qualified this by saying that nobody expects redundancy to be a very good experience anyway, that there will always be some traumas and mistakes, but given that, overall, the managers felt that the changes had been handled at least as well as anywhere else. 9 managers, on the other hand, felt that the changes had been handled less well or even badly. The general feeling of these managers was that for the most part the major decisions were correct, but the execution and planning had been poor. The factor that still caused concern was 'dribbling redundancies', a few now and again, which perpetuated a state of nervousness and insecurity. This was one of the reasons why some felt that morale was now at its lowest ever among the workforce, although an equally small number felt that morale was now much better than it had been 12 to 18 months ago. A very small number (3) questioned what seemed to be a policy of weeding out people at 55 before they could take full advantage of their pension, while a few more felt there ought to be clearer guidelines on selecting those to be made redundant, such as LIFO. In these ways the company came across as being a bit hard.

## Ratings of Performance and Effort

The Personnel Manager of the company provided an assessment of performance and a separate assessment of the effort of each manager. He was asked how hard working he thought each manager was, in terms of how much effort the manager put into his job. Each was rated in relation to a seven point scale, with 1 being best, and 7 being worst in terms or effort and performance. Each manager also rated himself in terms of effort. He was asked to see the construct 'hard work' on the repertory grid as the amount of effort he and others put into the job. (A list of these ratings is shown in appendix 8.13).

An obvious benefit of one, independent assessor rating all the managers, is that there is some overall consistency in the marking. But

there is also a disadvantage, which possibly applies to all independent ratings, in that one manager cannot know with any great certainty, even with appraisal forms at his disposal, how well a manager is working, and, of course, his own personal feelings and prejudices will colour his judgement.

There is also the problem that the independent assessor will probably use the scale differently to the way, at least, some of the managers might use it, in the sense of not using extreme ratings, or perhaps only using extreme ratings. In the case here, the assessor tended to rate around the middle, emphasising marks 2,3 and 4, awarding only one 1, and no 6 or 7. This middle rating tendency, coupled with the possibility that the notion of 'hard work' or effort, may have management ethos and ideological connotations which would make it difficult for a manager to mark himself low even if he knew he was idle, may be some of the reasons why there was a discrepancy between self markings and those of the assessor. There was a tendency for managers overall to mark themselves highly on effort, and higher than the independent assessor's mark. 8 people gave themselves a rating of 1, and 17 gave themselves 2. But if we take these marks as a general indicator of above average effort, and the marks of 2 and 3 of the assessor, also to generally indicate activity that is above average (he felt that a rating of 2 was 'exceptional' in terms of effort or performance), then there is some general agreement between manager and assessor ratings.

There is also some agreement where managers and assessor did not rate their performance and effort so highly. Of the 30 managers, 24 had a mark for effort which was within one mark of that of the assessor. In the case of the other 6 (A,E,K,P,T,U), they all marked themselves two places higher than that of the assessor, (for instance, 1 against the assessors 3, or 2 against his 4).

There are some explanations for each of these discrepancies. Manager K, for instance, had recently failed to get promotion and would have preferred to have been doing a different job. Thus it is possible that his effort was low, although he might not know it. T and U are

production managers at Wimet. U had been a foreman and shop steward before becoming a manager 2 years ago. He claimed he had always worked hard. The discrepancy might have been the result of a number of factors. It may be that the individual, in relation to how he worked for most of his life on the shopfloor, thought he was working hard, but in terms of the new managerial norm, he might not have adjusted. Additionally, during the interview he complained a lot about paperwork and having too many meetings, and that his forte was in dealing with men on the shopfloor. It would be easy to see how someone who resisted, or was slow with paperwork, or who was frustrated by meetings, very visible managerial activities, might be rated low by an assessor, who may rarely have seen his work on the shopfloor. Manager T, on the other hand, was an experienced manager, but at 59 would be unlikely to be putting forward quite the same effort as he did when he was younger. This is not just from a physical point of view. Mentally he gave the impression of feeling he was nearing the end, with retirement only a few years away and few new challenges left. He had accepted he would never be a director.

Even so, the assessor rated both the Wimet men two places lower than their own ratings, and it is possible this may have been due to his own prejudices. As he was based in Birmingham, and they were in Coventry, he did not have much first hand experience of their work. But on a number of occasions the assessor in describing other managers commented that a manager was 'like a Wimet man', a 'clock watcher'. Thus, to be from Wimet was almost derisory in the assessor's eyes.

Manager A, a production manager and a 'shopfloor man', also as with U, may have failed to display 'visible' managerial activities, but at 58 he may also, as possibly in the case of manager T, have not realised that age may slow you down.

With regard to manager E, the assessor said he thought the manager was waning in his effort. The assessor felt that the manager would not admit this to me, which he did not. Nevertheless, he too was over 50, and may not have realised the effect age may have had on his effort.

Manager P is an ex GKN executive who left the firm because he could not live with the pressures, and also the hassles of union negotiation. He is at a much lower level in the Sandvik hierarchy, and during the interview gave the impression that life was much quieter now and he preferred this. It would not seem unreasonable to suggest, in his case, that he had lost a lot of his dynamism, but failed to realise it himself.

If we disregard these discrepancies for the time being and look at the managers own self ratings, the real problem then, becomes whether effort is a factor that one can make any real assessment about. As 26 managers gave themselves a 1 or 2, one is left with the problem, implied earlier, of whether managers in general rate themselves highly on this concept purely because it is one that is part of some kind of general management ethos, or whether the 26 managers are, in the main, all hard working. It is very difficult to say, and shows the limitations of these kinds of assessment of effort. Many managers commented, as did the assessor, that it was a hard working company, which I have no reason to doubt in general, but there were other signs that the scale may not have discriminated between managers that well. The Finance managers, for instance, in general, worked longer hours than anyone else, and three (B,D,L) were a little put out that they would often leave work later than others and were not being paid for it. But only one of these marked themselves as 1 for effort. Nevertheless, overall, the managers' assessments and their general coincidence with the assessors would seem to indicate that they are a reasonable reflection.

What then do the scales tell us about managerial effort, apart from the fact that overall the managers were generally quite hard working? In the first place, effort does not seem to be particularly related, in this company's case, to division or the hierarchical position of the manager, but there does seem to be some tentative evidence that age is a factor. Perhaps surprisingly, of the 8 managers who gave themselves 1, all four managers of 54 and over did so, (although three of these marks were 2 higher than the assessors mark). Eight out of

nine 40 year olds gave themselves 2, while the four managers who gave themselves 3 or below were all between 36 and 41. Three of these managers gave themselves 3, but there seems no obvious reason why they should give themseleves this relatively low mark from comments they made in the interview. None of the managers gave themselves the average mark (4). The remaining manager gave himself 5 and admitted that he was not particularly committed to the company or work in general, and that he could have been pushed harder by his boss.

It is difficult to draw many conclusions about effort as so many managers felt they were hard working. It is difficult without a larger number of 'idle' managers with which to compare the hard workers, to really explore the reasons for hard work or lack of it. But I do not think this high number of hard working managers is untypical. Although none of the managers actually marked themselves on a scale in the previous companies researched, very few admitted to being not hard working. There is some slight way round this as my brief comparison later between Sandvik and Massey-Ferguson shows, but it is perhaps to the repertory grid analysis at the end of the chapter that we should look for help in exploring the problem of effort.

## Self Actualisation

10 managers felt that the notion of self actualisation had relevance. 3 of these (G,K,O) felt it was a side effect, or that it only had part relevance. The remaining 7 actually felt it meant something to them (E,J,Q,V,Y,AA,AB). Age seemed to play some part here, although on the surface there would not seem to be any obvious reason why it should. Nevertheless, self actualisation seemed to mean something to either younger (33 - 39 years), or older (50,54) managers. One might have expected there to be a relationship between self actualisation being important to a manager, and work being of central importance in a manager's life, discussed more fully below. But this does not seem to be the case, with 4 of these 7 managers seeing work as of central importance, but 3 not seeing it as central.

Central Importance of Work

In the earlier analyses, in considering the broader environment, there has been a tendency to concentrate on whether the manager has a family. However, this is not a usefully discriminating factor as nearly all of the managers interviewed have been married. Nevertheless, I did attempt, in the earlier discussion, to go a little further by indicating how aspects of family life, young children, for instance, rather than merely having a family, can influence what one finds important at work, as with pay, for instance. But perhaps what is of more use (and although the same data was gathered in the companies visited earlier it has not been used until now) is the notion of whether work is of central importance to the individual, or whether there are other things of more importance. It is not the fact that someone has a family or work alone, but the priority a manager gives to these in a global sense which may have significance.

Of course, the family is related to this kind of analysis. In considering whether work is of central importance to an individual it would also seem sensible to consider why it was central, and one of the obvious reasons would seem to be family circumstances. For instance, manager D, as with managers in previous companies, said that when she had just been divorced, she threw herself into work and work became very important to her. Now she has remarried it is not so important.

However, in addition to considering why work may or may not be central it would also seem fairly obvious to consider what the consequences for work are as a result of this. Unfortunately, this added dimension may confuse rather than clarify.

Of the 30 managers, 16 felt work was central in their lives, while 14 felt it was not the most important thing to them, although 2 of the 16 and 2 of the 14 managers said work and family were nearly equal in importance. If we first of all try to relate these feelings to feelings of job security, we find that the results are not very

conclusive. One might expect managers who did not see work as central to feel less job insecurity. Yet 8 of the 16 managers felt no insecurity while 6 felt insecure. Of the other 14 managers, 9 felt no job insecurity, while 7 felt insecure. There was one interesting small group of managers who felt work was not central, were given a low or average performance rating by the assessor, but who felt no insecurity (D,S,AB). Managers G,K,W, on the other hand, felt work was not central, had a low performance rating, but felt insecure. Perhaps the more interesting group is those managers feeling work is central, getting an average or below average performance rating, and feeling insecure. Of the 7 managers seeing work as central with a lower performance rating, 5 felt insecure. Possibly, the repertory grid output might highlight some sort of common theme amongst these managers.

Despite this, neverthless, there does seem to be some small relationship between work centrality and effort. All of the managers, except one, for instance, who rated themselves at 1 for effort, also saw work as central. Three of the four managers rating themselves 3 or below for effort saw work as not central. One manager who did not see work as central gave himself a 1 for effort. He was the youngest manager (29) working in the finance department where long hours seemed to be the norm. No other manager in the 'not central' category gave himself above 2 for effort.

As far as age is concerned, there seems to be little to relate this to feelings about the centrality of work. Although it is interesting that 5 of the 6 managers of 50 or over said work was central and they all had 'grown up' families. This really is not very surprising. Perhaps what would have been significant would have been if 5 of the 6 managers had said work was not central, given that the family probably no longer diverted much of their energy.

Another, but largely unexplored possibile consequence of having work as central is how does it affect, not aspects of work, but other aspects of life. I have only one direct example, that of J, who felt that work being so important to him, had ruined his marriage. But

both area sales managers (N,AC) who saw work as central also, felt their job was a 'marriage breaker'. They believed you had to be fairly committed in the first place to do a sales job in the kind of industry they were in (machine tools), but they felt it could easily take you over and you could become wrapped up in it. N admitted to suffering from 'hypertension' as a result of the work.

Divisional Differences

I have tried to look for aspects that distinguished the various divisions from each other, but there was nothing of blinding significance. Managers in the Steel Division were obviously aware of conditions in the steel industry and while not necessarily all personally insecure, had many doubts about the viability of the division in its present form. This was for a number of reasons and not only the economic conditions. What was probably more important was whether the people in the Division could adapt to the changing environment successfully, and while not giving in, and to some extent seen as a challenge by the managers, there was some doubt that changes could be made quick enough. There was also a feeling amongst two managers (Y,R) that decision making at the top with regard to Steel might have been better communicated and more open.

The general feeling in S & T was one of greater optimism, although again more than one manager (X,AD) had questioned, in this case, the product policy. S & T was seen as being more innovative than Steel and with better chances of success.

CMP was seen by managers both within and without as more innovative and possibly more successful, although probably not necessarily the most profitable. There is no implication that higher management in the other divisions was lacking, but more managers expressed support and confidence in senior management in CMP.

It is difficult to say anything in a general sense about Wimet as only three managers were interviewed there and the R & D manager cannot be

seen really as a Wimet man. Nevertheless, it was possible to club together opinions expressed generally on Wimet and other acquired companies such as Aven. Perhaps two things stand out, although not every manager expressed these. The first is that both Aven and Wimet benefitted by being taken over by Sandvik and thus attitudes were generally positive. The second is that some managers were still conscious of attempts to encourage 'Sandvik attitudes'. It is difficult to see, of course, how it could be otherwise. It is also difficult to say how successful this had been, but I do not think anyone was generally negative towards the main company. One further view expressed by a small number of managers was that the integration of these companies had gone on for too long and perhaps never should have been attempted in the first place. But there was now a feeling that the problems had been mostly sorted out.

Massey-Ferguson and Sandvik Comparison

Before we consider the data from the next company it might be worth trying to draw some brief comparisons and conclusions between this and the previous company.

Although in different industries, there are many similarities between the two companies; their size, the fact they were both leading companies in their field, certainly until two years ago, both foreign owned, both profitable and both suddenly taking hard financial and economic knocks over the last two to three years, with the consequence of fairly large redundancies. Managers in both companies were also aware that there would be further redundancies and rationalisations.

Despite this, there seemed to be a vast difference in terms of the commitment, enthusiaism and frustration of the two groups of managers. Obviously not all MF managers were frustrated, and most were committed to the company, but there is a strong contrast between MF, which had small pockets of quite considerable discontent, and Sandvik which had hardly none. Why should this be so, especially when in general the MF

managers claimed to be all hard working? As noted previously, although they did not rate themselves on a scale they said very much the same things as the Sandvik managers about their amount of effort. There would seem to be no reason to doubt that, in general, MF managers were at least as hard working as Sandvik managers, and that some, especially the MF finance managers, worked possibly harder, and certainly longer hours over longer periods.

One of most obvious differences between the two companies was the lack of promotion opportunities in MF and the belief that there were still reasonable opportunities at Sandvik. Some managers in Sandvik felt there was little in the company left for them, but this was often because they had reached a position where there were only two or three jobs left that they could do anyway, (e.g. H,M). They did not blame this on the company but seemed to accept it as part of life. But there was no general frustration among managers lower down either. Sandvik seemed to maintain a feeling of 'possibilities' within the company. In MF, the younger finance managers felt that there were a number of less able managers sticking to their posts, and also demoted managers, who were unlikely to move outside the company with the recession. There seemed to be no such blockage at Sandvik. (There were 'demoted' managers, e.g. R,S, but these were given a 'projects' job which effectively moved them to one side in the system). Moreover, although both companies could be described as international, the chances of going abroad were much more realistic in Sandvik, which was growing in the third world, but which also did not prevent managers gaining experience at the head office in Sweden. This was vastly different from MF who were not only closing some of their plants worldwide, but who in some managers eyes resisted moves to Toronto.

It is noteworthy that in both companies there were opportunities for lateral job moves. These did not prevent the discontent in MF, but possibly went some way to reducing it. All managers in both companies had a reasonable chance to do interesting jobs, be moved to new ones before they became stale, and gain experience and new knowledge. If such opportunities had not been available it would seem plausible to

suggest that there would have been more frustration amongst more of the MF finance managers.

Pay was the other obvious factor that distinguished the two companies. There was very little discontent in Sandvik, mainly because managers had received a fairly competitive pay increase of 5%. In MF, managers had received nothing. It is interesting that the MF finance managers, nevertheless, were able to earn a considerable amount extra through overtime yet a number of them were still frustrated with pay. This is in contrast to the finance managers at Sandvik who generally worked quite long hours, but received no overtime payment. One reason seemed to be the belief amongst MF managers that their basic earnings were below the market rate and that they could command more outside. Sandvik finance managers did not feel this. In fact, one of the two managers really frustrated by pay at Sandvik (L) was a finance manager who felt he was low paid in terms of his worth to the company. He reconciled himself to the situation because he felt that his pay was competitve with what he could get outside. It seems that the relativities aspects of pay overrode his feelings of value, or at least, that is how he rationalised it.

Even so, it seems more likely that it was pay and the lack of promotion opportunities together that really frustrated the MF finance managers as against those at Sandvik. Mr. Z in Sandvik, for instance, was a young finance manager who felt pay was important and that he could command £10,000 more outside. Yet he stayed with the company partly because of the job experience and partly because of the promotion opportunities.

Nevertheless, it was not all the young finance managers in MF who felt frustrated. The engineers experienced some discontent, both at the way their director was trying to motivate them, and at the loss of dining room privileges. In Sandvik the top management was seen as fairly enlightened and would be unlikely to employ the tactics used by the Director of Engineering at MF. Moreover, everyone ate in the communal dining room with no special privileges. There could be no

feelings of relative deprivation at Sandvik because there was nothing to be deprived of.

One thing which is difficult to explain, however, was the unfairness of the car allocation system at Sandvik. All managers, except those in the finance department, received a company car. Yet while the managers were annoyed at this, there seemed to be as much frustration among the MF engineers over the loss of £200 worth of free meals. One possible reason for this is that the Sandvik managers were not deprived of their cars while the rest kept theirs. They were not suddenly taken away. Part of the frustration over the loss of the meals was that the engineers felt they had taken an effective pay cut, whereas the rest of the workforce had not, even though they never had the privileges in the first place.

On items like feedback, appraisal and management development, both companies seemed to be equally lacking. Many managers in both companies complained of poor feedback, or lack of it. Yet managers also seemed to feel they had to live with it, that this was normal for the work situation, and to get an involving, interested boss was a bonus rather than the norm. It would seem, on the surface, to be one of the areas where the biggest leaps forward could be made in motivating employees. For instance, the only two managers who admitted to being 'idle' (S at Sandvik and I at MF) felt that this was partly due to a lack of effective involvement and encouragement from their boss. Nevertheless, the area seems to be down played both by managers and by personnel departments themselves, as if feedback is a necessary chore, but not really something that can make much difference. Despite the comments about the two managers above, perhaps this is largely correct, as managers in both companies seemed to be hard working, despite the general lack of positive encouragement, feedback and programmed development.

One interesting difference between the managers of the two companies, especially the MF finance managers and the rest, was the differences in expectations of the personnel department. In MF, which had an ela-

borate personnel department there was a feeling that the department lacked care and interest, and that something more should be being done about feedback, promotion, development and training, etc. In Sandvik the personnel department was run by only two managers, yet there were no complaints of its performance by Sandvik managers. Clearly, at Sandvik promotion was not so much of a problem, but the overall feelings towards personnel at MF seemed to be that it should be doing more. In both companies, nevertheless, promotion, development, training and, of course, feeedback were the responsibility of the deartments in which the managers worked. Personnel in Massey almost took on the role of scapegoat.

Another obvious difference between the two companies was in the handling of redundancies and the execution of rationalisations. They did not seem to have been done any less humanely in either companies. In fact, Sandvik seemed to have a policy of announcing redundancies at 5 pm on a Friday or just before a major holiday, which would seem to be a less than endearing practice. But the major frustrations in this area seemed to lie at MF and the item which seemed to most effect feelings was the time delay at MF between the general announcement that there would be redundancies and then saying actually who they would be. There was a lapse of three months between these two. Sandvik experienced nothing like this. In fact, one manager (L) complained that there was a two day delay in saying who was to be made redundant. A three month lapse, in view of this comment, must have been quite worrying.

Neither company had finished contracting, yet there was a greater feeling of optimism at Sandvik. The 'dribbling redundancies' continued to cause frustration, but the managers generally felt that stability was not too far round the corner. In MF, especially amongst the finance managers, this was not the case. But, even so, there did not seem to be wide differences in the distribution of feelings of job insecurity at the two companies. It may have been that Sandvik's seeming ability to come to terms with the problems quickly may have given a greater cause for optimism about the future, even though this

may have been due more to luck than design, and a pliable workforce. It seems unlikely that this was because Sandvik was in better trading markets than MF. The steel and machine tools industries are hardly big growth areas.

Despite these differences the managers in both companies, and including both divisions in MF, seem to have one important factor in common. Overall the managers worked hard, or at least, would not often admit to not working hard. Assuming that they are not all lying, and assuming that there is not an ethos surrounding the notion of effort that colours their responses too much, one might be hard pushed to try and explain why these managers should have this factor in common. For me, again, it would seem to point, on the one hand to job content and on the other to self image. Few of the managers were doing jobs they disliked. They nearly all found them challenging, interesting and satisfying. But, nevertheless, even those managers who felt they had a lot of frustrations in their jobs, still kept working hard. Clearly, not everything can be explained away in terms of self image and there are a whole range of factors which I have acknowledged previously, from boss's involvement to fear of being made redundant, which must play a part. But self image would certainly seem to be an important factor. Even with the two 'idle' managers mentioned above, self image would seem to play some part. Neither of them saw themselves as company men, and neither saw themselves as wanting to make an impact on the company. Their notions of self did not seem to depend on their work activity.

## B) LANSING BAGNALL

### Introduction

Lansing Bagnall Ltd is the main manufacturing subsidiary of the Kaye Organisation. The principle activities of the group are the manufacture and marketing of materials handling equipment. 19 companies comprise the group, which employed at the beginning of 1980, 7,000 people. However, 3 companies, Lansing Bagnall, Lansing Henley and Bonser Engineering are the principal companies manufacturing handling equipment. In the financial year ending 1981, the group had a total turnover of £142 million.

### Lansing Bagnall Ltd

Lansing Bagnall Ltd was founded in 1920 in London as a distributor of mechanical handling equipment for an American manufacturer. In 1930 the company began manufacturing their own designs in this country, but it was not until after the War that the company experienced rapid growth and in 1949 moved to Basingstoke.

During the 1950s and 1960s the company developed a range of fork lift trucks and underwent further expansion. In the mid 1960s they developed a turret truck which received the Queen's Award for Technological Innovation and a Design Council Award.

In the 1970s the company expanded further. To meet higher production targets, many ancillary services including Product Engineering, Counterbalance Truck Assembly, Sheet Metal, Electrical and Despatch Divisions, were located in satellite factories around the Basingstoke area. By the end of the 1970s the company employed 3,300 at Basingstoke and were the largest manufacturer of fork lift trucks in Europe. An aggresive exporter, the company had won four successive Queen's Awards for Export Achievement.

During the period November 1980 to November 1982, the company suffered severely as a result of the economic depression. By November 1982 the company had reduced its manpower by approximately 30% at Basingstoke; down to about 2,300 employees on its main site, and had closed two manufacturing sites in the area. The majority of the redundancies were made in the production and services areas; the departments from which the managers who were interviewed came. Although most of those made redundant were manual workers, some managers and 2 Directors, were also made redundant. From November 1980 until last year (1982) managerial staff accepted a 5% cut in their salary.

The industry had suffered from severe competition since the mid 1970s, especially from the USA, Germany and Japan. There was now over-capacity in the industry worldwide and little chance of a market upturn.

The company was seen as unusual in that it was a contracting organisation located in an area surrounded by expanding electronics firms, unlike, for instance, the West Midlands, where Sandvik and Massey Ferguson were located.

## Interviews

A total of 15 managers were interviewed. 6 of these were from the Production Division, 5 were from Manufacturing Services and Product Engineering, and 4 from the Production and Inventory Control Departments. The managers all came from two hierarchical levels in the organisation, shown in diagram 7. At the time of the interviews, parts of the company were on short time working, usually a 3 day week, but also a 4 day week in some factories. The short time working was funded by the Government, without which, the personnel manager maintained, there would have been further redundancies.

LANSING BAGNALL ORGANISATION STRUCTURE SHOWING APPROXIMATE POSITIONS IN THE HIERARCHY OF THOSE INTERVIEWED

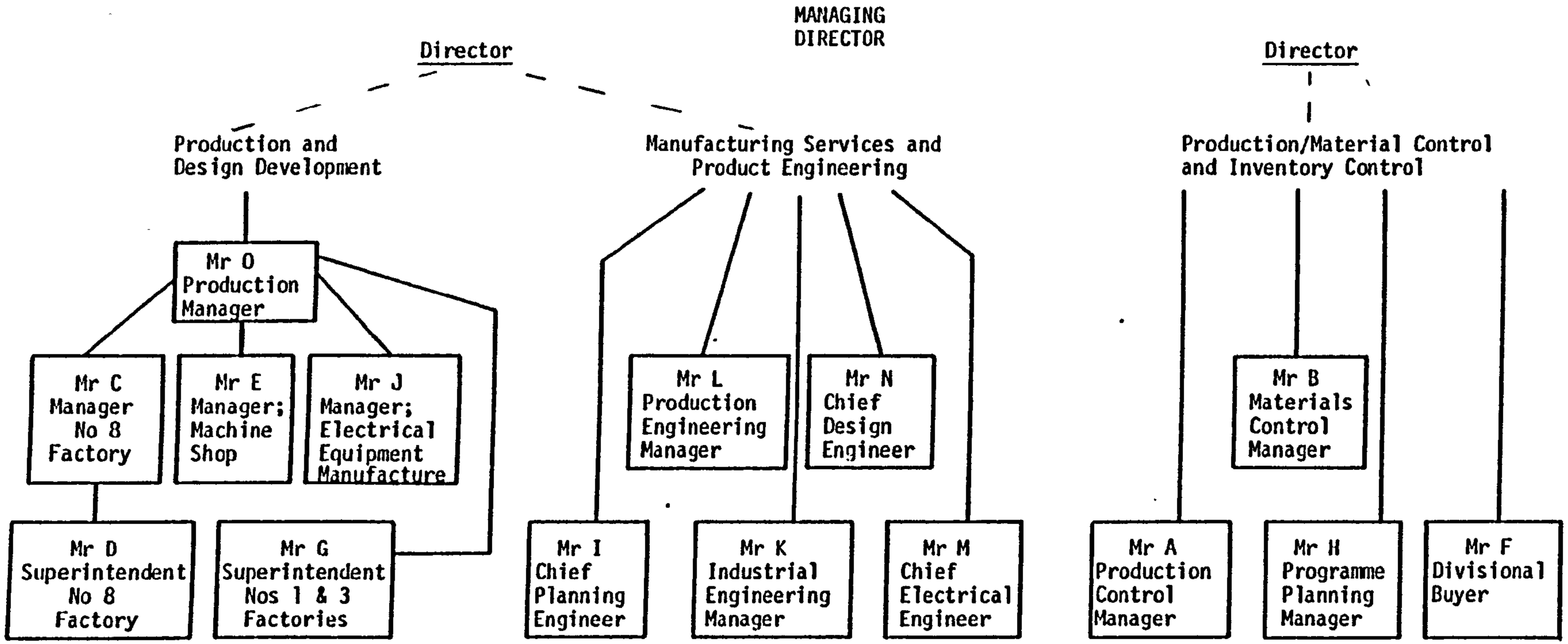



DIAGRAM 7

## Analysis

### Introduction

The analysis of the Lansing data follows along the same lines as those taken with the previous two companies, Massey Ferguson and Sandvik. The main areas considered are: promotion; pay; job content and satisfaction; feedback; management development and appraisal; autonomy, decision making and communications; job security and redundancy; feelings about the company's future; ratings of effort; self actualisation; the central importance of work; and divisional differences.

### Promotion

With regard to feelings towards promotion, there were some differences discernable amongst managers at Lansing in terms of age, although it does not seem to be as evident as in the previous two companies. Of the 15 managers, 5 are not particularly concerned about promotion (C,D,I,J,N). This, again as in the previous companies, seemed to be because the managers were not promotion conscious and content with their hierarchical positions, or because they were realistic and knew they would not get higher. These managers tended to be older and mainly in their late 40s and 50s, although there was one manager in his late 30s (D), who did not see promotion as being particularly important. The remainder had various degrees of concern about promotion. 5 wanted to get higher, but were more concerned about mastering their own jobs first (A,B,E,K,O). The remaining 5, (F,G,H,L,M), wanted to get higher but felt that opportunities were very limited. 3 of these partly accepted this as a result of the restrictions imposed by recession, but 2 (H,M) were less accepting and would probably leave the company if a job with better prospects came their way.

The important point about this is not that a few managers might leave the company, but that a large number wished to stay, despite the fact that it would seem unlikely that the company would have many opportunities in the future and almost all managers accepted that there might be further rationalisation. This feeling about promotional opportunities seemed due, possibly, to a number of factors. The managers were relatively old, only 2 of those interviewed were below 38, and age itself, can have a mellowing affect on promotional concerns. They were also relatively long serving employees. Only one of the managers interviewed had been with the company less than 15 years, and there would seem to be, in general, a greater willingness to accept major difficulties for the sake of the company. There was also the difficulty of finding another job, although most managers had not bothered to look for jobs outside. Of course, this is not to say that these feelings might not change. The 5 managers still concerned with mastering their jobs might take a different line when they felt they have got on top of their work. But, this again seemed to point to what would seem to be the main factor in reducing discontent, that of job content, and the fact that for the most part, managers found their jobs challenging and interesting.

Pay

Of the 15 managers, 7 (B,C,D,E,K,N,O) were happy with their pay. 3 (G,J,M) were unhappy, but accepted the situation, while 4 (A,H,I,L) could be described as frustrated with their pay. Again, none of the manager's day to day effort seemed to be greatly affected by frustration over pay, (see later), but it seemed likely that one of these four managers would leave the company fairly soon because of pay, and possibly one other would follow in the near future.

The main reason for the frustration over pay seemed to be because the managers felt that they were not being paid for the responsibility they had. This was particularly true for one manager (A) who had been told he was doing a good job, and in comparison with other managers

and the person that held the job previously, he was lower paid. He had been told that he had to accept the situation because of the recession, but he had become frustrated by this, especially as there seemed to be evidence that the company now had some spare cash. The feeling of dissatisfaction seemed to have little to do with his needs as he was single with 'modest' indulgencies. It was the comparison and the affect on his self esteem that was most affecting him. Additionally, one other manager was frustrated because pay reductions had not been adequately justified by the company.

It is interesting that two years ago managers actually took a 5% pay cut, but there was no frustration over this because it was well communicated, seen as being 'for the good of the company', and all had been willing to go along with it.

Some managers at the company also applied these notions of 'comparison' and communication to fringe benefits in a slightly different way to managers at other companies. In Lansing's case there was no evidence of frustration over fringe benefits themselves, but they were seen by a few, as symbols of something else which could be frustrating. In this case it was the replacement of old cars, and the 'something else' was the indicator that the company had some spare cash and could therefore be spending it on further pay increases.

Job Content and Satisfaction

By far the majority of managers were satisfied with their jobs. No one complained of being bored and no one said they were dissatisfied with what they were doing and would definitely prefer to be doing something else. As in the other companies, this is not to argue that everyone was satisfied with all aspects of their jobs, but for the most part, taking managers jobs overall, there was generally a great deal of job satisfaction. Again, the fact that in general jobs were challenging, were felt to be important, had variety and were interesting, was important to even those managers more concerned with pay.

Where a few managers (F,N) did feel frustration in their jobs was because they felt they were not able to do them properly, rather than because they did not like them. A number of factors, from the reduction in the workforce to the 3 or 4 day week, had brought more pressure on managers. By far the majority seemed to be coping with this, and a few were 'hyped' on it. But a small number felt they were firefighting, or being panicked into producing work quickly that they believed should have had more time devoted to it.

While this obviously affected the managers concerned, it did not seem to be widespread. Indeed, job satisfaction was probably the main factor that had kept those managers dissatisfied with pay and promotion, in the company. It may also be the main factor that seemed to have kept morale high amongst management. The company had introduced new production technology, new flow lines and computerisation etc, and this had kept managers from being bored, given some managers broader experience and some hope for the future. There had been some frustrations with these changes, but the experience and interest outweighed the frustrations.

With regard to motivation, the managers at Lansing supported the general conclusion from the research so far, that day to day effort is much more likely to be affected by a manager's immediate job environment, and by his own self concept or personal image of himself. Again a large number of the managers felt they were very hard working, and to be seen to be doing a job well, to do jobs to the best of one's ability, (and in some cases regardless of whether this had implications for promotion etc), as in the previous company, were often offered by the managers as reasons for their particular approaches to work.

A further factor, which seemed more particular to Lansing than to the other companies, was the notion of 'reciprocation' amongst managers. That is, the idea that the company had been good to them, and managers now wished to contribute to the company and get it back on its feet. It obviously had a lot to do with the fact that the managers I inter-

viewed were mostly very long serving. 'Long service' can be a problem, as over the years managers might become staid, and the company were worried about this. But long service could also be a considerable asset. It seemeed much more likely that the managers were prepared to stick out the difficulties because they had a strong loyalty and feeling of association with the company. Of course, there will be limits to what managers will accept, but at least the energies of the majority were not diverted into finding jobs elsewhere.

Feedback

Most managers felt they had at least a reasonable working relationship with their boss and 5 managers (A,C,F,J,O) were satisfied with the encouragement they got. 3 (D,G,K) felt there could be more feedback about their performance, while 2 (H,I) were actually affected by the fact that they could not sit down and discuss their jobs with someone and get some guidance and comments on their performance. 3 (E,K,M) did not expect feedback, while 2 (B,N) were frustrated by the constant negative feedback they were getting.

Management Development and Appraisal

Management development and training were not greatly in evidence in Lansing. 8 managers (A,B,D,G,H,I,M,N) felt more could be done in this area. There were, in the first place, a number of basic skills like report writing which some managers felt they could improve on. But a number of more experienced managers commented that they would have liked to have developed in a number of areas, from using time effectively, to delegating better, to developing interpersonal skills.

Autonomy, Decision Making, and Communications

Autonomy was important to all the managers to varying degrees. Only one manager (D) thought that he perhaps had too much freedom and not

enough involvement from his boss. Of the remainder, 11 were happy with the freedom they got, while 3 (B,H,N) felt they were too narrowly constrained. 3 (B,E,O) were not entirely clear about their work objectives, but this did not seem to be a great concern in any of the cases.

Related to autonomy, but slightly separate, was the fact that 5 managers (B,I,J,M,N) would have liked a greater say in decision making or in influencing decisions at the top. Not surprisingly, 4 of these managers (I,J,M,N) were in disciplines which they considered the company saw as cinderella areas. Most managers felt, however, that they were able to 'have their say', even though what they were saying might not be taken fully on board.

Despite this, there were a number of communication problems in the company. The main one was communication from the top down. 7 managers (E,F,G,H,K,M,O) complained of this, but the managers were not concentrated in any one department. It was a general feeling of wanting to know what the company was doing, and particularly before other members of the workforce knew. A comment from one manager, which is perhaps a typical feeling, was that communications were bad in British industry generally and this seemed somehow to lessen the problem. Nevertheless, the company's lack of openness was interpreted by some, not as caution or lack of trust necessarily, but a lack of a clear corporate plan, a lack of a clear product policy, and the company seemed to be encouraging, amongst some managers, a feeling that the company lacked direction.

The other main communication problem was between divisions. Managers in manufacturing related areas complained that they were subjected to fairly stringent assessments in terms of efficiency, while other divisions were not (H,O). On the other hand, some managers in the service and engineering areas often complained they were not understood. To what extent these differences were due to lack of communication is difficult to say, but it would seem to play a part. For instance, 2 managers in the services/engineering area complained of the lack of

professionalism of production managers, while some managers outside this area complained of the lack of awareness and sharpness of areas such as PED (engineering) and sales, while another felt PED was making reasonable strides forward. However, the important point is that these relative assessments were engendering frustration in some managers. Manager H, for instance, was very annoyed that other divisions were not 'pulling their weight'.

Job Security and Redundancy

With regard to job security, again the feelings of managers could be categorised into three main groups. The first relates to managers who felt no personal job insecurity, either because of their marketability or because of their own feelings of worth and self sufficiency. 9 of the managers (A,C,D,F,C,H,L,N,O) fitted into this category. The second relates to those who felt some insecurity, but who put it to the back of their mind. 5 managers (B,E,I,J,K) felt this way. The third category relates to those who felt insecure and who had been affected by this. This only seemed to apply to one manager (M) who had made a serious recent attempt to look for a job outside the company. Nobody admitted to working harder as a result of job insecurity. Perhaps 3 or 4 of the managers (for instance, D,C,O) may have been thinking along these lines, but it is probable that these managers would have worked hard whatever the economic circumstances. The main reason why the managers seemed, on the surface, to be not seriously affected by job insecurity, was probably due to their length of service, the feeling they had knowledge and skills of value to the company, and the fact the company had been a good employer in the past.

With regard to redundancy, feelings were, to some extent, mixed. Almost every manager felt that redundancy overall had been humanely handled. All accepted that redundancy was a difficult process and while there may have been one or two mistakes, the changes seem to have been handled fairly well. In terms of efficiency and what was

considered to be best for the company, rather than the individual worker, 6 managers (A,D,E,H,M,N) felt basically two things; that the application of LIFO was bad in that it left an imbalance of personnel in the company; and that the cuts did not go far enough, and the company did not grasp the opportunity to make the enterprise more efficient. On the other hand, 7 managers felt, on the whole, that the changes had been good. It is interesting, however, that 3 of these (C,J,O) saw a modified form of LIFO applied in their areas, that also 'protected skills' or got some other form of concession, while another manager (B) felt he had had influence on who was made redundant. Only one manager (L) seems to have favoured LIFO because he considered it to be primarily a 'fair' system.

Feelings about the Company's Future

With regard to the company's future, managers on the whole seemed to be optimistic. 11 (A,B,C,D,E,F,G,H,K,L,O) believed the company would 'pull through'. In general these managers saw some additional difficulties, perhaps some further rationalisation, but believed that the changes that had been made and which continued, would see the company survive. None of these managers saw the company ever again achieving the same size evident in the 1970s, but most felt that the 'number one' position in Europe could be regained.

The remaining 4 managers (I,J,M,N) were less optimistic. Their feelings can be summarised along the lines that, either the rationalisation had not gone deep enough, or that top management did not really know what they were doing, or there was a danger of complacency creeping back into the company. A lot of the changes, especially the technical innovations, were applauded by all managers, although some still saw some problems with them and much work still had to be done. But some of the other managers seemed to be, perhaps, too optimistic, pinning a lot of hope on the technical innovations that had been made and the possibility of economic upturn. While morale amongst the managers seemed, for the most part, to be reasonable, although as the

recession continued some admitted that at least their enthusiasm was affected. Nevertheless, perhaps to maintain one's own drive, managers may have had to think themselves into an optimistic frame of mind. The trouble was, that if there is no upturn at the end of the year, it seemed likely that it might become doubly difficult for them to remotivate themselves.

Whatever was liable to happen in a macro-economic sense, it seemed unlikely that the truck industry was going to experience much growth again. As one manager pointed out, even if companies do have some additional cash they are more likely to spend it first on new lathes rather than mechanical handling equipment. Moreover, the Japanese seemed unlikely to go away. It would seem that a way to prevent depression would have been for the company to be as open as possible and as realistic as possible. Then, if the next upturn did not materialise, it would not be the blow it could be if everyone was pinning hopes on it. The industry already seemed to have had two relatively recent false upturns. It seemed unlikely that even if the next upturn was not a falsehood, the economic environment would become very much more pleasant than it was at that time, and despite the changes the company had made, it would still have to rationalise possibly much further. Nevertheless, despite some over-optimism, it also seemed that if more cuts and changes had to be made, if the reasons were well communicated and rational etc, the company would get the support and sympathy of the majority of the managers.

As far as morale amongst the workforce rather than the staff was concerned, it would seem, that generally it was as good as could be expected. A number of managers commented that morale in their area was reasonable, but that in the company generally, it was poor. It would seem, not unsurprisingly, that where people were working a 5 day week, morale was higher than where they were on 3 days. But the problem was not one of insecurity alone, and low pay also seemed to play a part.

Ratings of Effort

An assessment of each manager's effort was provided by the Director responsible for each manager, after discussion with the Group Personnel Manager. Again, as with the previous company, each manager was rated in relation to a seven point scale, with 1 being most hard working and 7, not hard working. (Shown in appendix 8.13).

The assessors gave a spread of marks from 1 to 4, although they did not drop below the middle mark of 4. There was not the same discrepancy between the assessors' and managers' marks for effort, as there was at Sandvik. It may be that what was lost in overall consistency in that 4 senior managers were involved in the assessment, rather than the one at Sandvik, there was a gain in that the senior managers, possibly, had a more detailed knowledge of their managers' effort.

In 7 cases the managers' mark was the same as the assessors'. In 4 other cases the marks were within one point of each other. The remaining 4 (C,F,J,N) displayed varying degrees of discrepancy, with the greatest difference evident with C, who rated himself at 1, but was assessed at 4. The only factor that seems to have any relationship with these managers seems to be age. It is only relevant to 3 of the managers (C,J,N), but their ages are 58, 57 and 58, and they are the only managers in their 50s. The other manager (F), during the interview, maintained that he was under a lot of stress at work. Perhaps he equates stress with effort. But possibly the main reason for the discrepancy is that he was the only manager from the purchasing division. This division was peripheral to manufacturing and engineering, so it may well have been possible the assessors did not fully understand, or were unable to see, the work he was doing. On the other hand, this manager refused to complete the repertory grid. Not, of course, that one can make any assessment on that about effort, but he would seem to have had something to hide, and certainly felt threatened.

If we turn to the self ratings of effort of the managers alone, as with the previous company, the marks that managers gave themselves

were high. 7 gave themselves 1, 7 gave themselves 2, and only one manager gave himself 3. There does not seem to be any pattern between these marks, or relationship with age, hierarchical position, or length of service. Neither does there seem to be any relationship with those managers expressing frustration over pay or promotion opportunities. Manager A, for instance, greatly frustrated over pay and threatening to leave the company within the month gave himself 1 for effort. The rest, who were unhappy with pay, gave themselves 2. It may be that pay had affected their effort, but it would not seem to be great. The only seemingly clear indicator was that manager M, who was frustrated with both pay and promotion, gave himself the lowest mark, 3. But his ideal self mark was only 2 for effort, and as he was one of the few electrical engineers in a mechanical engineeering company and felt isolated, he may have given himself a relatively low effort rating for other reasons, or at least additional reasons, to pay and promotion.

Self Actualisation

Two managers (G,H) thought that the desire to self actualise had a particular effect on their job behaviour. Another 4 (A,C,D,O) felt that it meant something to them, but was not seen as a prime motivator. 5 managers (B,F,K,M,N) said the concept meant little to them. The remainder could form no real opinion about the notion. It is interesting that again there seems to be some slight relationship with age. The 6 managers above who felt that self actualisation had relevance are all below 40, or over 55. Of those 5 saying it meant nothing, 4 are in their 40s, although one (N) is 58.

Central Importance of Work

The notion of whether work is of central importance in a manager's life, again, as with Sandvik, is not one that reveals obvious patterns. There is no obvious relationship between work centrality and

self actualisation. Neither are there any obvious relationships between centrality and anything else, such as age, hierarchical position, length of service, frustration over pay and promotion, or effort. Not all managers giving themselves 1 for effort saw work as central. 3 did (A,G,L), but the remainder (C,K,N,O) did not, although N and O saw work as second to the family, but very important. Interestingly, in contrast to Sandvik, all three managers in their 50s saw work as secondary.

Nevertheless, the Lansing managers did provide some evidence to suggest that family circumstances can seriously affect one's approach to work. Manager D, for instance, said he was a workaholic until three years ago, when he found out that one of his daughters had Lukemia, and his marriage started breaking up. He now devotes much more time to his family. Manager F also said he devoted much less time to work now as a result of health and family reasons. Manager J was the director of a small company until he came to Lansing 19 years ago. He was working away from home at the time and rarely saw his family. His son, now in his early 20s, he described as 'withdrawn'. He blames himself for his son's condition which he felt resulted from him rarely seeing him when he was young, and his behaviour towards him when he did see him. He felt that he would never again give work the same predominance, and he lives with his guilt.

One interesting but separate issue, is how the attempt to get behind a manager's statement can make the researchers life extremely difficult. If one just takes the immediate Yes or No answer to the question of whether work is central or not, there is no problem. It is when managers start to elaborate that the problems occur. For instance, manager O's first answer, was that his children came first. But on further questioning he revealed that he worked flat out Monday to Friday and only really saw them at weekends. It was only after this analysis that he decided to say that work and family were a balance.

## Divisional Differences

Although I tried to look for differences between the three main groups I identified at the beginning of the chapter, there was not anything of great significance. There are the rather obvious points that production managers feel they are motivated more by short term explicit deadlines, while engineers need more time to think, and feel less keen to come up with snappy solutions. Perhaps the basic differences in their approach to work is a reason for some of the misunderstandings between divisions; or perhaps not, and perhaps some divisions were more easy going. But there were no obvious differences between the divisions on pay, promotion, autonomy etc. Non-production divisions felt that top management regarded them as less important, and also the further one went away from mechanical aspects, there was a greater feeling of being less understood. The managers at Lansing had learned to live with it, although not all had learned to accept it.

# APPENDIX 7.2

## EXAMPLE REPERTORY GRID ANALYSIS

# APPENDIX 7.2

## EXAMPLE REPERTORY GRID ANALYSIS

### Introduction

In order to get some idea of the kind of outcomes that might be expected from the use of a grid and whether it had any possible value to the study, a comparison was made of two grids completed by two managers. The comparison suggested that the use of repertory grid technique would enhance the research project. No firm conclusions were drawn from the analysis before the instrument's wider use, but this analysis indicated that the repertory grid had possibilities in explaining the areas of importance in the research, and there was some hint that different and distinguishable grid patterns might be exhibited by different managers. The analysis that follows indicated those areas where patterns might be found amongst a larger population.

### Analysis

The two managers grids are shown in figures 16 and 17. Grid 1 (figure 16) relates to a manager who, at the time of eliciting the grid, was content with his job and organisation. Grid 2 (figure 17) is taken from a manager who is frustrated in his job and wishes to leave his organisation. For this example, the past self was omitted and organisation self is element 11. (Note that in the analysis of the company data, in the main text, past self becomes E11, and organisation self, E12).

The computer programme INGRID developed by Slater for analysing single grids produces a considerable amount of output. Ways of analysing and interpreting grids are outlined in an number of sources including the range of works by Slater and the UMCC GAP manual. All of the suggested ways of interpreting the INGRID output will not be gone into here and only those aspects of the computer output that seem particularly relevant to the study will be highlighted. However, before this is explored it is worth pointing out that the grids, as they are before computer analysis, contain useful material. It can be seen, for

NAME: GRID 1 : MANAGER 1

| CONSTRUCTS | | | ELEMENTS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | POSITIVE | NEGATIVE | 1 Present Self | 2 My Boss | 3 My Boss's Boss | 4 Subordinate; Good Perform. | 5 Subordinate; Bad Perform. | 6 Colleague Liked | 7 Colleague Disliked | 8 Person Likely To Get On | 9 Person Not Likely To Get On | 10 Ideal Self | 11 Myself as seen by the person with most influence | |
| 1 | Hard Working | Not Hard Working | 2 | 2 | 2 | 2 | 6 | 4 | 4 | 1 | 4 | 1 | 1 | |
| 2 | Conscientious | Not caring | 1 | 3 | 2 | 3 | 6 | 5 | 4 | 3 | 3 | 1 | 1 | |
| 3 | Intelligent | Unintelligent | 3 | 3 | 3 | 5 | 5 | 3 | 4 | 3 | 7 | 2 | 2 | |
| 4 | Politically Ambitious | Politically Inept | 3 | 3 | 3 | 5 | 4 | 6 | 4 | 2 | 6 | 3 | 4 | |
| 5 | Keen | Disinterested | 1 | 1 | 1 | 2 | 5 | 3 | 3 | 1 | 5 | 1 | 1 | |
| 6 | Ambitious | Unambitious | 2 | 2 | 2 | 4 | 5 | 2 | 2 | 1 | 7 | 2 | 3 | |
| 7 | Get Along Well | Socially Inept | 3 | 3 | 3 | 3 | 4 | 3 | 5 | 3 | 3 | 2 | 4 | |
| 8 | Flexible | Rule Governed | 3 | 4 | 5 | 4 | 5 | 2 | 4 | 2 | 4 | 3 | 2 | |
| 9 | Pragmatic | Idealistic | 3 | 2 | 2 | 3 | 3 | 7 | 2 | 1 | 4 | 3 | 2 | |
| 10 | Sophisticated | Not Sophisticated | 3 | 2 | 2 | 4 | 4 | 4 | 6 | 2 | 4 | 2 | 3 | |
| 11 | Tough Minded | Tender Minded | 3 | 3 | 3 | 5 | 6 | 5 | 4 | 3 | 5 | 2 | 1 | |
| 12 | Intellectual | Mentally Limited | 2 | 2 | 2 | 5 | 6 | 2 | 4 | 2 | 6 | 2 | 2 | |

FIGURE 16

NAME: GRID 2: MANAGER 2

| CONSTRUCTS | | | ELEMENTS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | POSITIVE | NEGATIVE | 1 Present Self | 2 My Boss | 3 My Boss's Boss | 4 Subordinate; Good Perform. | 5 Subordinate; Bad Perform. | 6 Colleague Liked | 7 Colleague Disliked | 8 Person Likely To Get On | 9 Person Not Likely To Get On | 10 Ideal Self | 11 Myself as seen by the Person with most influence | |
| 1 | Hard Working | Not Hard Working | 1 | 1 | 2 | 5 | 4 | 2 | 2 | 2 | 7 | 1 | 1 | |
| 2 | Mentally Sharp | Mentally Slow | 3 | 3 | 2 | 4 | 7 | 2 | 2 | 1 | 6 | 1 | 4 | |
| 3 | Outgoing | Reserved | 5 | 2 | 1 | 2 | 4 | 3 | 2 | 4 | 4 | 3 | 6 | |
| 4 | Not Crawling | Crawling | 2 | 4 | 6 | 2 | 2 | 3 | 6 | 5 | 1 | 4 | 4 | |
| 5 | Open Minded | Closed Minded | 2 | 3 | 7 | 4 | 5 | 3 | 7 | 6 | 6 | 2 | 4 | |
| 6 | Caring | Not Caring | 1 | 1 | 1 | 5 | 4 | 2 | 2 | 2 | 7 | 1 | 1 | |
| 7 | Competent | Incompetent | 2 | 2 | 1 | 3 | 7 | 1 | 1 | 1 | 6 | 1 | 4 | |
| 8 | Cultured | Uncouth | 2 | 3 | 1 | 5 | 6 | 2 | 1 | 1 | 6 | 2 | 4 | |
| 9 | Clever | Thick | 2 | 3 | 2 | 4 | 7 | 1 | 1 | 1 | 7 | 1 | 3 | |
| 10 | Modest | Self Conceited | 2 | 3 | 7 | 6 | 3 | 4 | 7 | 5 | 5 | 4 | 3 | |
| 11 | Efficient | Inefficient | 3 | 2 | 3 | 4 | 6 | 1 | 3 | 1 | 7 | 1 | 4 | |
| 12 | Capable | Not Capable | 2 | 2 | 3 | 2 | 6 | 2 | 4 | 1 | 6 | 1 | 4 | |

FIGURE 17

instance, the kind of constructs the individual uses to view his world. Those shown in Grids 1 and 2 are close to what are described in a earlier chapter as self image values. Clearly two grids is not enough to establish how widely such constructs might be used by managers, but the fact that this particular type of grid elicits such constructs would suggest that the instrument has potential for identifying the areas of interest to the study. Moreover, it is also possible just by looking at the ratings given along each construct dimension on each grid, to see how a manager is thinking. For instance, the ratings on construct 1 in each grid indicate that both managers regard themselves as hardworking, and in relation to their associates.

The first section of computer output that is particularly relevant is that which is concerned with construct variation. The variation percentages in Table 1 show which constructs account for the most variance for each manager. As the constructs are not comparable, analysing this table in any great depth is not necessary, although it may highlight constructs that a manager particularly uses to discriminate (those that have the higher percentages).

Table 1

| | Grid 1 | Grid 2 |
|---|---|---|
| Construct | Variation % | Variation % |
| 1 | 10.15 | 8.95 |
| 2 | 10.28 | 8.70 |
| 3 | 8.62 | 5.13 |
| 4 | 6.46 | 5.29 |
| 5 | 9.80 | 8.03 |
| 6 | 11.81 | 9.41 |
| 7 | 2.36 | 10.76 |
| 8 | 4.86 | 8.78 |
| 9 | 9.52 | 11.76 |
| 10 | 6.18 | 6.64 |
| 11 | 8.62 | 9.16 |
| 12 | 11.24 | 7.39 |

The table is of some significance, however, in indicating the relevant importance in a managers construct system of the given construct (i.e. C1 - hard working). A low percentage relative to the other constructs would show that a manager did not particularly use it to discriminate, which may indicate the importance of this construct in viewing himself and others. In both Grids 1 and 2, this construct is placed fairly high in relation to the other constructs (4th and 5th).

A somewhat similar table is provided for the elements. In this case a 'sum of squares' percentage is given alongside each element, with a small percentage indicating that an individual is indifferent to an element, and a large percentage indicating greater importance, either favourable or unfavourable. Table 2 shows that for both managers, elements 5 (subordinate; bad peformer) and 9 (person not likely to get on) are of particular importance. In Grid 2, E3 (boss's boss) is of greater importance than in Grid 1, while in Grid 1, E6 (colleague liked) is given more emphasis. In Grid 1, E1 (present self) is less significant than in Grid 2, while E10 (ideal self) and E11 (organisation self) are also more prominent in Grid 1 than in Grid 2.

Table 2

| | Grid 1 | Grid 2 |
|---|---|---|
| Element | Sum of Squares % | Sum of Squares % |
| 1 | 3.31 | 7.29 |
| 2 | 3.31 | 3.32 |
| 3 | 4.93 | 9.27 |
| 4 | 3.92 | 5.62 |
| 5 | 17.81 | 17.19 |
| 6 | 13.12 | 3.87 |
| 7 | 10.01 | 8.27 |
| 8 | 8.31 | 6.45 |
| 9 | 17.90 | 26.34 |
| 10 | 8.58 | 6.88 |
| 11 | 8.79 | 5.51 |

A number of tables show the relationship between each construct, between each element, and between each element and construct. The 'correlations between constructs' table indicates which constructs an individual uses similarly to view his world, and how he clusters them together.

This clustering of constructs can perhaps be best displayed by using the component analysis data printed in the computer output. Table 3

Table 3

| | Grid 1 | | Grid 2 | |
|---|---|---|---|---|
| Component | Root as % | (Cumulative) | Root as % | (Cumulat) |
| 1 | 57.9 | | 59.15 | |
| 2 | 14.3 | 72.2 | 23.68 | 82.83 |
| 3 | 12.2 | 84.4 | 8.60 | 91.43 |
| 4 | 7.85 | 92.2 | 4.71 | 96.14 |

shows the percentage of variance accounted for by each component for each manager. The cumulative totals by the side show that for both managers, four components account for almost all the variance.

Although, in both cases, they have a singularly important component which explains nearly 60% of the variance, the world of manager 2 would seem to be primarily two dimensional, while manager 1 uses the third and possibly fourth components to a greater extent.

The Loadings from the output, given in Tables 4 and 5, provide a representation of each managers construct system. With regard to manager 1 (Table 4), on component 1 (bottom table) it can be seen that all the constructs are grouped along one dimension, which in this case is the negative side. The most extreme cluster is keen (5), hard working (1), tough minded (11), intellectual (12) and intelligent (3). The elements that are seen along this same dimension and thus associated with the constructs above are the elements, ideal self (10) and

Table 4

Grid 1

| Component 1 | | Component 2 | | Component 3 | |
|---|---|---|---|---|---|
| Element | Score | Element | Score | Element | Score |
| 5 | 1.330 | 7 | .471 | 2 | .874 |
| 9 | 1.260 | 5 | .383 | 9 | .626 |
| 7 | .565 | 3 | .316 | 10 | .326 |
| 4 | .451 | 2 | .182 | 4 | .296 |
| 6 | .438 | 8 | .147 | 3 | .216 |
| 2 | - .503 | 4 | - .002 | 1 | .024 |
| 3 | - .507 | 11 | - .007 | 5 | - .064 |
| 1 | - .561 | 1 | - .062 | 8 | - .092 |
| 11 | - .740 | 9 | - .143 | 11 | - .224 |
| 8 | - .827 | 6 | - .161 | 6 | - .444 |
| 10 | - .900 | 10 | - .225 | 7 | - .751 |

| Component 1 | | Component 2 | | Component 3 | |
|---|---|---|---|---|---|
| Construct | Score | Construct | Score | Construct | Score |
| 7 | - .399 | 9 | .861 | 7 | .703 |
| 9 | - .455 | 4 | .541 | 10 | .488 |
| 8 | - .482 | 2 | .033 | 2 | .366 |
| 4 | - .735 | 10 | - .032 | 1 | .225 |
| 10 | - .746 | 5 | - .033 | 4 | .038 |
| 2 | - .757 | 11 | - .088 | 5 | - .024 |
| 6 | - .761 | 3 | - .143 | 9 | - .048 |
| 3 | - .863 | 1 | - .228 | 12 | - .247 |
| 12 | - .895 | 12 | - .265 | 8 | - .306 |
| 11 | - .898 | 6 | - .379 | 3 | - .367 |
| 1 | - .907 | 7 | - .472 | 6 | - .504 |
| 5 | - .960 | 8 | - .603 | 11 | - .895 |

Table 5

Grid 2

| Component 1 | | Component 2 | | Component 3 | |
|---|---|---|---|---|---|
| Element | Score | Element | Score | Element | Score |
| 9 | 1.706 | 3 | .842 | 11 | .535 |
| 5 | 1.345 | 7 | .802 | 5 | .380 |
| 4 | .416 | 4 | .346 | 7 | .264 |
| 11 | .210 | 9 | .208 | 3 | .188 |
| 1 | - .241 | 8 | .167 | 8 | .029 |
| 2 | - .350 | 5 | - .088 | 1 | - .013 |
| 7 | - .487 | 6 | - .259 | 2 | - .057 |
| 6 | - .520 | 2 | - .285 | 10 | - .222 |
| 3 | - .566 | 10 | - .348 | 6 | - .289 |
| 8 | - .724 | 11 | - .524 | 9 | - .292 |
| 10 | - .788 | 1 | - .861 | 4 | - .521 |

| Component 1 | | Component 2 | | Component 3 | |
|---|---|---|---|---|---|
| Construct | Score | Construct | Score | Construct | Score |
| 4 | .544 | 3 | .700 | 6 | .416 |
| 10 | .144 | 8 | .156 | 1 | .397 |
| 5 | - .196 | 7 | .131 | 8 | .159 |
| 3 | - .321 | 2 | .089 | 10 | .143 |
| 1 | - .823 | 9 | - .010 | 9 | - .012 |
| 6 | - .835 | 11 | - .146 | 2 | - .141 |
| 12 | - .836 | 12 | - .216 | 11 | - .157 |
| 8 | - .932 | 6 | - .286 | 8 | - .188 |
| 11 | - .948 | 1 | - .374 | 3 | - .341 |
| 7 | - .961 | 4 | - .596 | 5 | - .399 |
| 2 | - .962 | 5 | - .862 | 12 | - .405 |
| 9 | - .971 | 10 | - .954 | 4 | - .437 |

person likely to get on (8), with organisation self (11) following closely. Present self (1) is also seen on this dimension. At the opposite end of the element pole, in this case the positive side, are, person not likely to get on (9) and subordinate; bad performer (5).

On component 2, on the negative side, element 10 (ideal self) and element 6 (colleague liked) stand out and are contrasted with colleague disliked (7) and also subordinate; bad performer (5), and boss's boss (3). The constructs seen on the same dimension are flexible (8), get along well (7) and ambitious (6). Thus this manager associates his boss's boss with a disliked colleague and sees them both on the same dimensions as being pragmatic and ambitious.

On component 3, again on the negative dimension, colleague disliked (7) is contrasted, on the positive side, with his boss (2) and person likely to get on (9). While the latter is associated with the construct 'get along well' (7), the former is seen along the same dimension as tough minded (11) and ambitious (6).

In relation to manager 2 (Table 5) on component 1, we see that the negative constructs, clever (9), mentally sharp (2), competent (7), efficient (11) and cultured (8), are bunched closely together. Also seen along this dimension are caring (6), capable (12) and hard working (1). These are in contrast to not crawling (4). In relation to the elements, this negative cluster is seen along the same dimensions as ideal self (10) and person likely to get on (8). At the opposite (positive) end of the pole is person not likely to get on (9). It is interesting that organisation self (11) is on the same (positive) side as (9). Moreover, this manager's present picture of himself (1) is a long way from the ideal (10).

On component 2, the constructs modest (10) and open minded (5) are contrasted with outgoing (3). In relation to the elements, the manager sees his present self (1), the ideal self (10) and the organisation self (11) along the same lines as modest and open minded. Outgoing (3) does not relate to him, but it does to his boss (3).

Thus the two managers reveal that their prime constructs on the main component (1) are associated with elements 8 and 10 - person likely to get on and ideal self. But manager 2 is different in having organisation self (11) on the same side as subordinate; bad performer (5), and person not likely to get on (9). Present self (1) is also further from the ideal self (10) for this manager.

Another area of possible analysis, and one that Norris and Norris emphasise, is the table of angular distances between elements. They point out that this table shows the distance between any pair of elements as a ratio of the expected distance between all pairs of elements in the grid. This measure has a minimum of 0, a mean of 1, and it seldom exceeds 2, although as a ratio it has no predetermined maximum. Thus any pair of elements which are separated by a distance close to 0 are seen as being similar, while a distance close to 2 indicates they are dissimilar and a distance close to 1 indicates neither similarity nor dissimilarity, but indifference to each other. They argue that this measure can be used to examine how a subject identifies himself as being similar to certain people or dissimilar to others. An axis can be drawn and the distances of all elements from the actual, ideal and (their own) social self, and between these three, can be plotted. They argue that the subject identifies himself as being similar to those elements at small distances and dissimilar to those at large distances. Elements at distances close to 1 do not contribute to the individual's self identification; he is neither like them or unlike them.

Before an attempt is made to plot such a diagram it is worth taking a brief look at the figures for the angular distances between elements for the two managers, particularly the present self (1), ideal self (10) and organisation self (11). The figures are shown in Table 6.

If we look at Grid 1 first, we find that the manager sees his present self as quite similar to (10) his ideal self (.38), and (2) his boss (.37). He sees himself as somewhat similar to (3) his boss's boss (.43), and (8) person likely to get on (.49). Although he feels his

Table 6

Grid 1

| Element | Present Self | Ideal Self | Organisation Self |
|---|---|---|---|
| 1 | 0 | .38 | .51 |
| 2 | .37 | .48 | .65 |
| 3 | .43 | .53 | .74 |
| 4 | .75 | .95 | .98 |
| 5 | 1.31 | 1.54 | 1.51 |
| 6 | .99 | 1.15 | 1.18 |
| 7 | .96 | 1.28 | 1.10 |
| 8 | .49 | .55 | .64 |
| 9 | 1.27 | 1.44 | 1.43 |
| 10 | .38 | 0 | .63 |
| 11 | .51 | .63 | 0 |

Grid 2

| Element | Present Self | Ideal Self | Organisation Self |
|---|---|---|---|
| 1 | 0 | .56 | .56 |
| 2 | .54 | .40 | .68 |
| 3 | 1.14 | .84 | 1.07 |
| 4 | 1.01 | .93 | .92 |
| 5 | 1.21 | 1.45 | .85 |
| 6 | .50 | .27 | .76 |
| 7 | 1.11 | .85 | 1.00 |
| 8 | .80 | .52 | .86 |
| 9 | 1.45 | 1.67 | 1.22 |
| 10 | .56 | 0 | .82 |
| 11 | .56 | .83 | 0 |

present self is fairly close to his ideal self (.38), it is somewhat distant to his organisation self (.51).

Grid 2 shows fairly high distances on all the self elements, which means that this manager, especially on his present and organisation selves, does not particularly associate with anyone. His present and ideal selves, and his present and organisation selves are at some distance (both .56), but noteworthy is the distance between his present self and his boss (.54), and especially his boss's boss (1.14). Thus he feels dissimilar to the person who has most influence on his career in the organisation.

As mentioned above, the information can be plotted diagrammatically. Figures 18 and 19 are plots for manager 2. Figure 18 is a comparison between the present and ideal self. Figure 19 is a comparison between the ideal and organisation self. The main difference between these two is that element 5 (subordinate; bad performer) in figure 19 falls in the sector which is unlike the ideal, but like the organisation self. Thus, the frustrated manager feels, particularly, that although ideally he does not want to be like a bad performer, he feels he is viewed by the organisation as similar to this role.

The same plot for manager 1 is shown in figures 20 and 21. In this case all of the elements fall in sectors where there is agreement between the two self elements about the non self elements.

Also of some use is the production of a similar type of diagram, but relating constructs instead of elements to the three self elements. The appropriate data is produced in Table 7, which shows the angular distances between constructs and elements. Particularly noticeable here is the big difference between the two managers in terms of the distances of the constructs in relation to the organisation self. Manager 2 feels he is seen on the negative dimension of seven of his constructs; that is, he thinks he is seen as mentally slow (2), reserved (3), incompetent (7), uncouth (8), thick (9), inefficient (11), and not capable (12). Moreover, the figures for his ideal self,

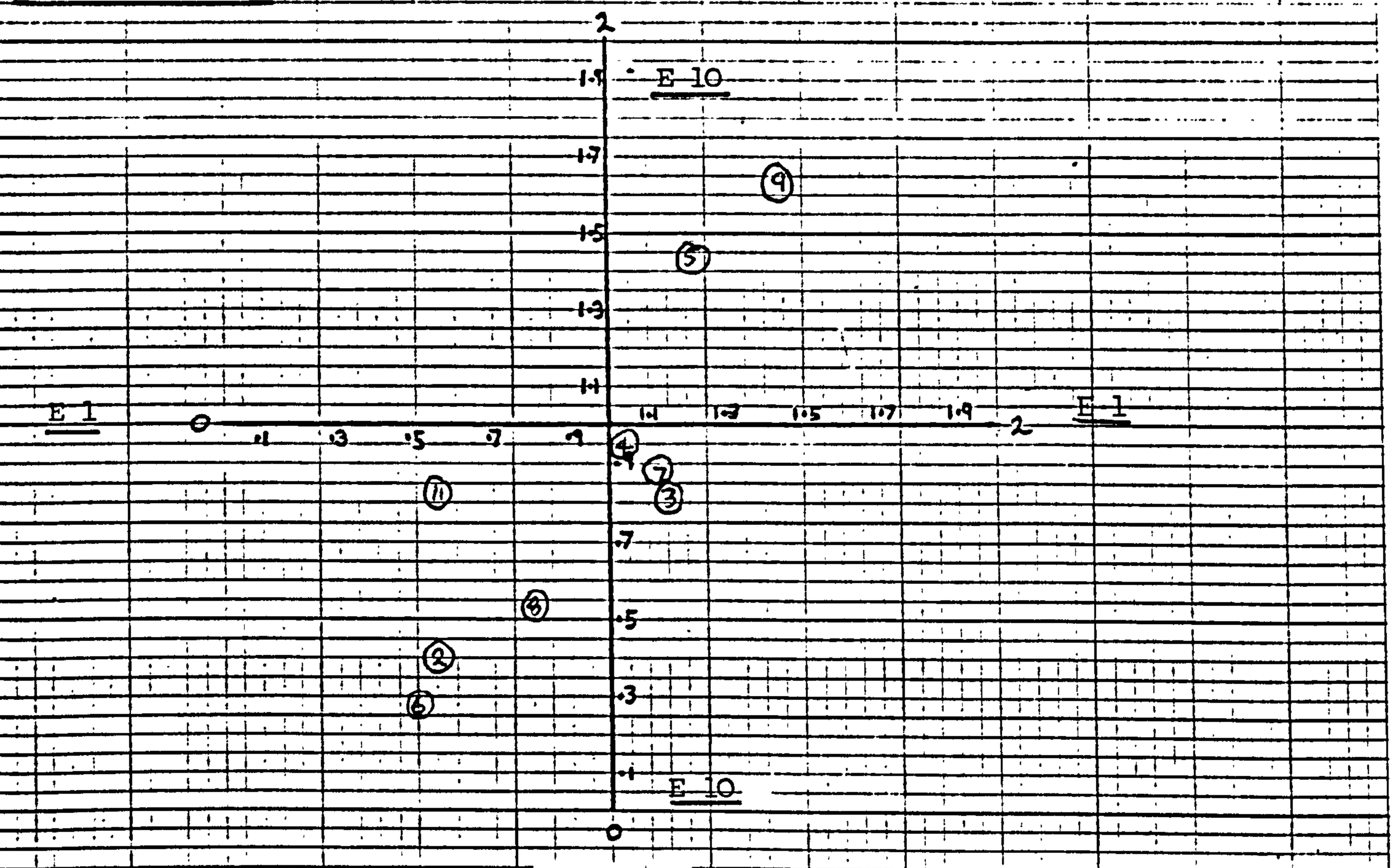



Figure 18

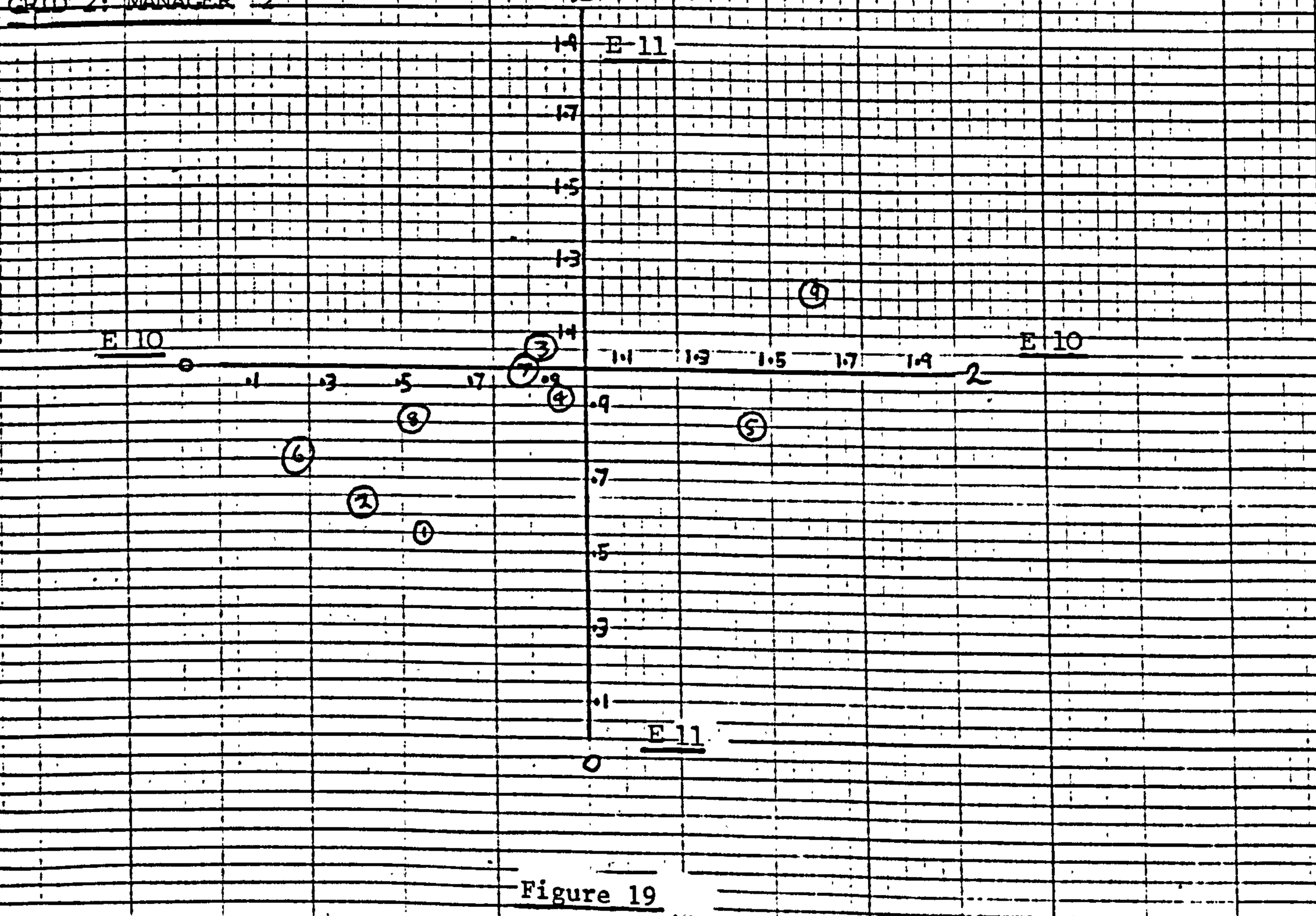



Figure 19

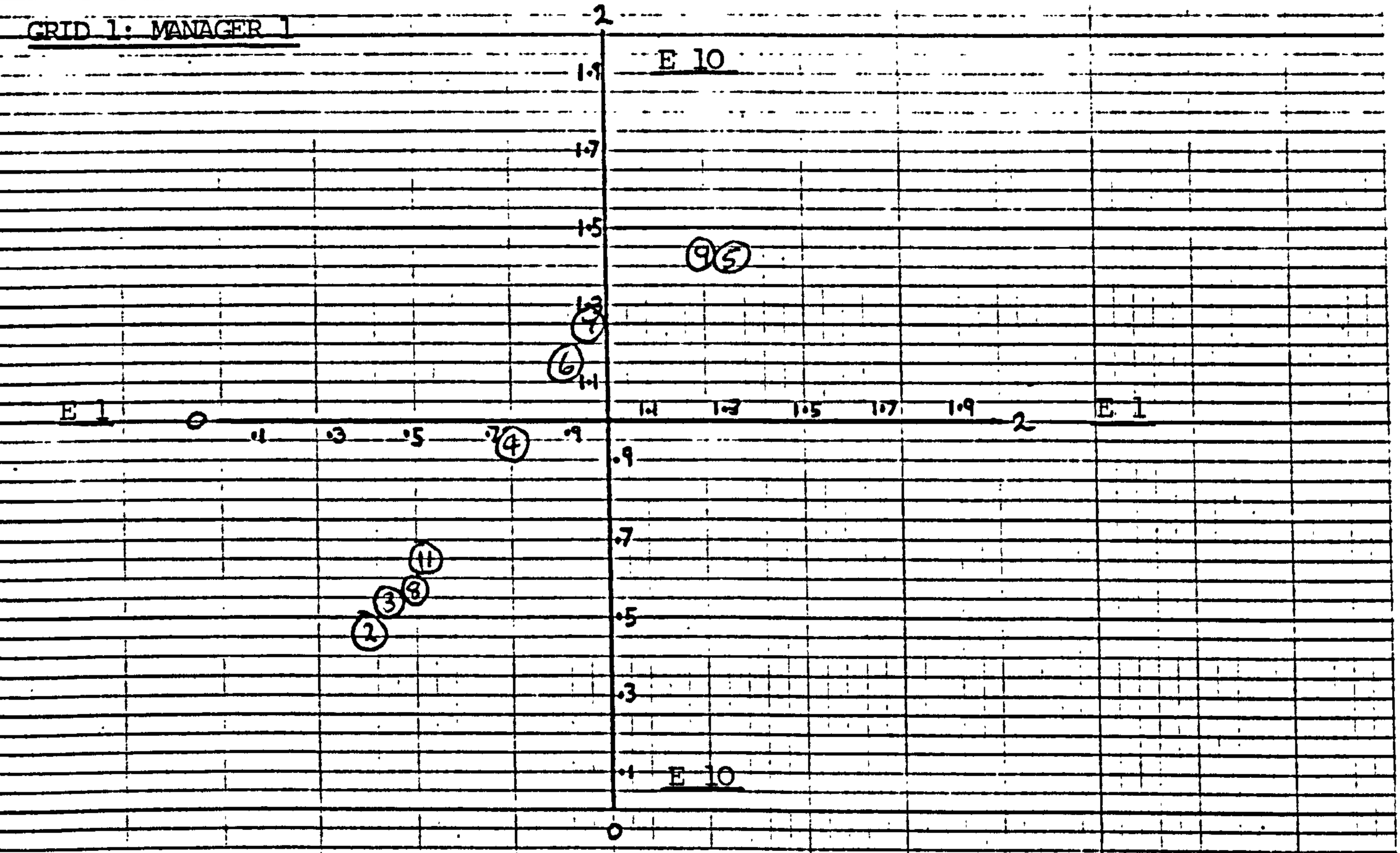



Figure 20

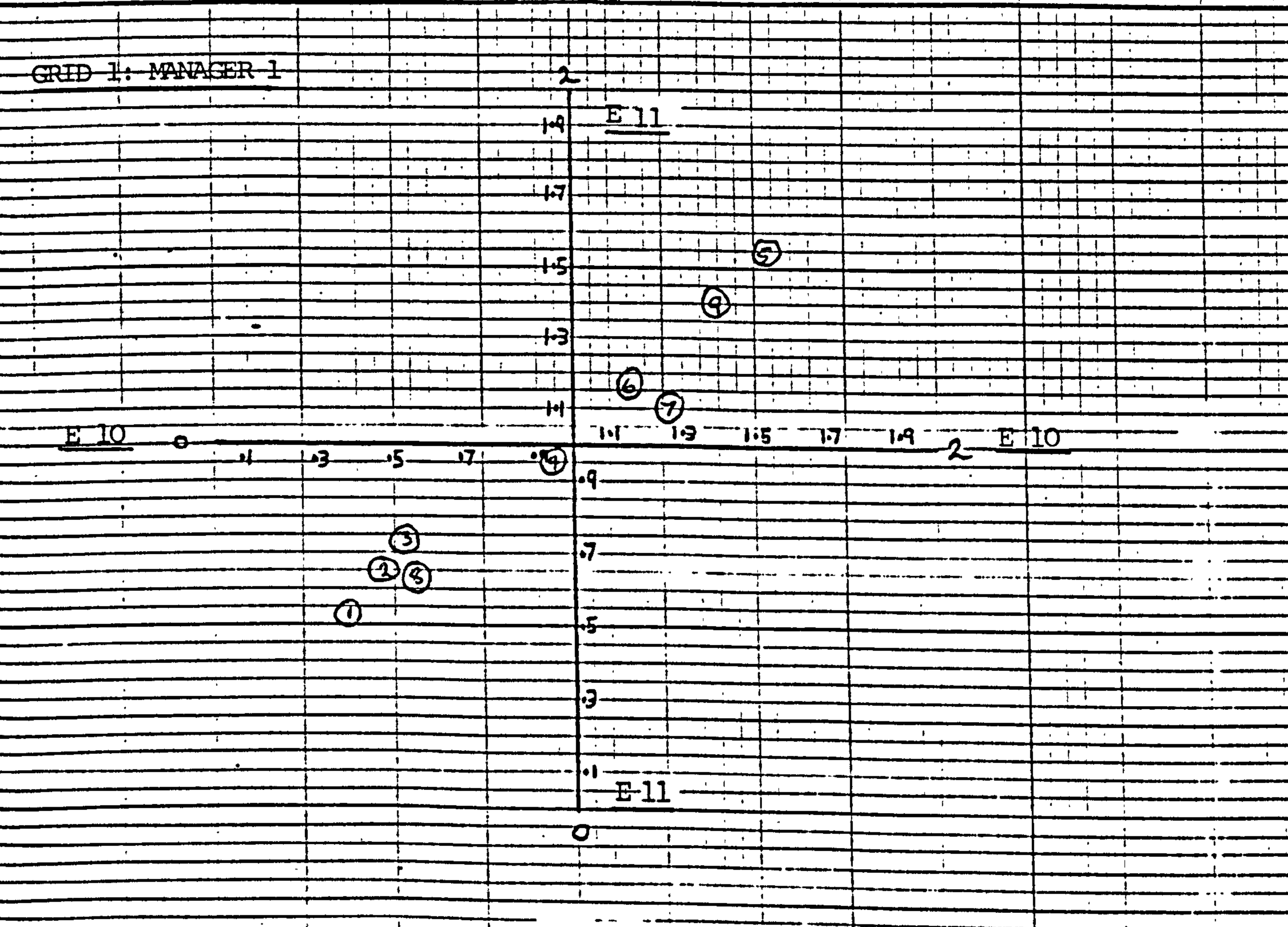



Figure 21

## Table 7

### Grid 1

| Construct | Element | | |
|---|---|---|---|
| | Present Self | Ideal Self | Organisation Self |
| 1 | 36 | 35 | 43 |
| 2 | 37 | 38 | 43 |
| 3 | 42 | 43 | 46 |
| 4 | 52 | 56 | 69 |
| 5 | 39 | 39 | 47 |
| 6 | 58 | 56 | 63 |
| 7 | 67 | 46 | 94 |
| 8 | 60 | 67 | 52 |
| 9 | 88 | 75 | 66 |
| 10 | 64 | 37 | 70 |
| 11 | 46 | 40 | 24 |
| 12 | 41 | 45 | 51 |

### Grid 2

| Construct | Element | | |
|---|---|---|---|
| | Present Self | Ideal Self | Organisation Self |
| 1 | 57 | 39 | 74 |
| 2 | 79 | 33 | 111 |
| 3 | 127 | 82 | 151 |
| 4 | 59 | 100 | 76 |
| 5 | 36 | 50 | 74 |
| 6 | 61 | 41 | 77 |
| 7 | 80 | 36 | 116 |
| 8 | 80 | 47 | 106 |
| 9 | 73 | 33 | 102 |
| 10 | 34 | 78 | 46 |
| 11 | 70 | 22 | 105 |
| 12 | 67 | 24 | 108 |

500

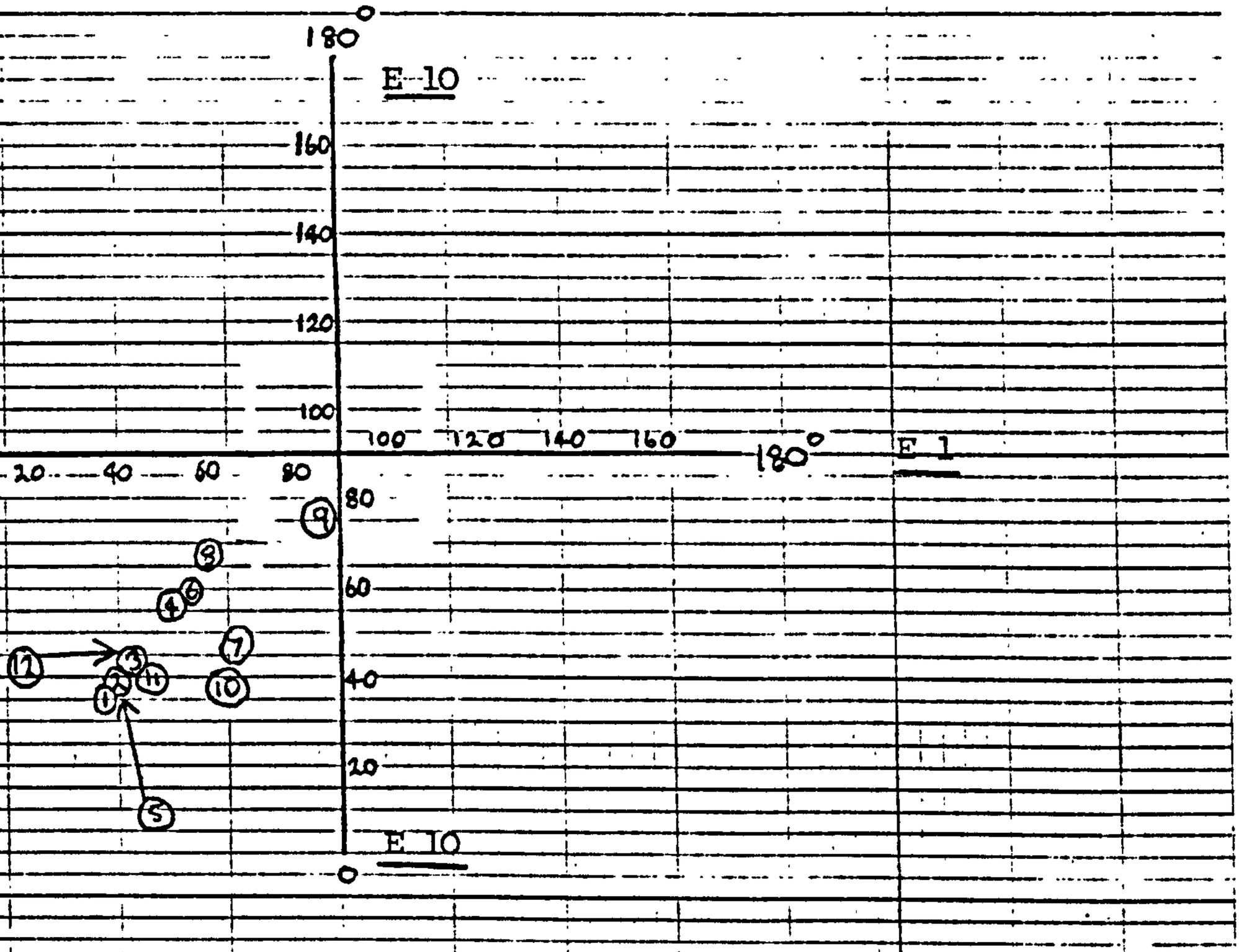



Figure 22

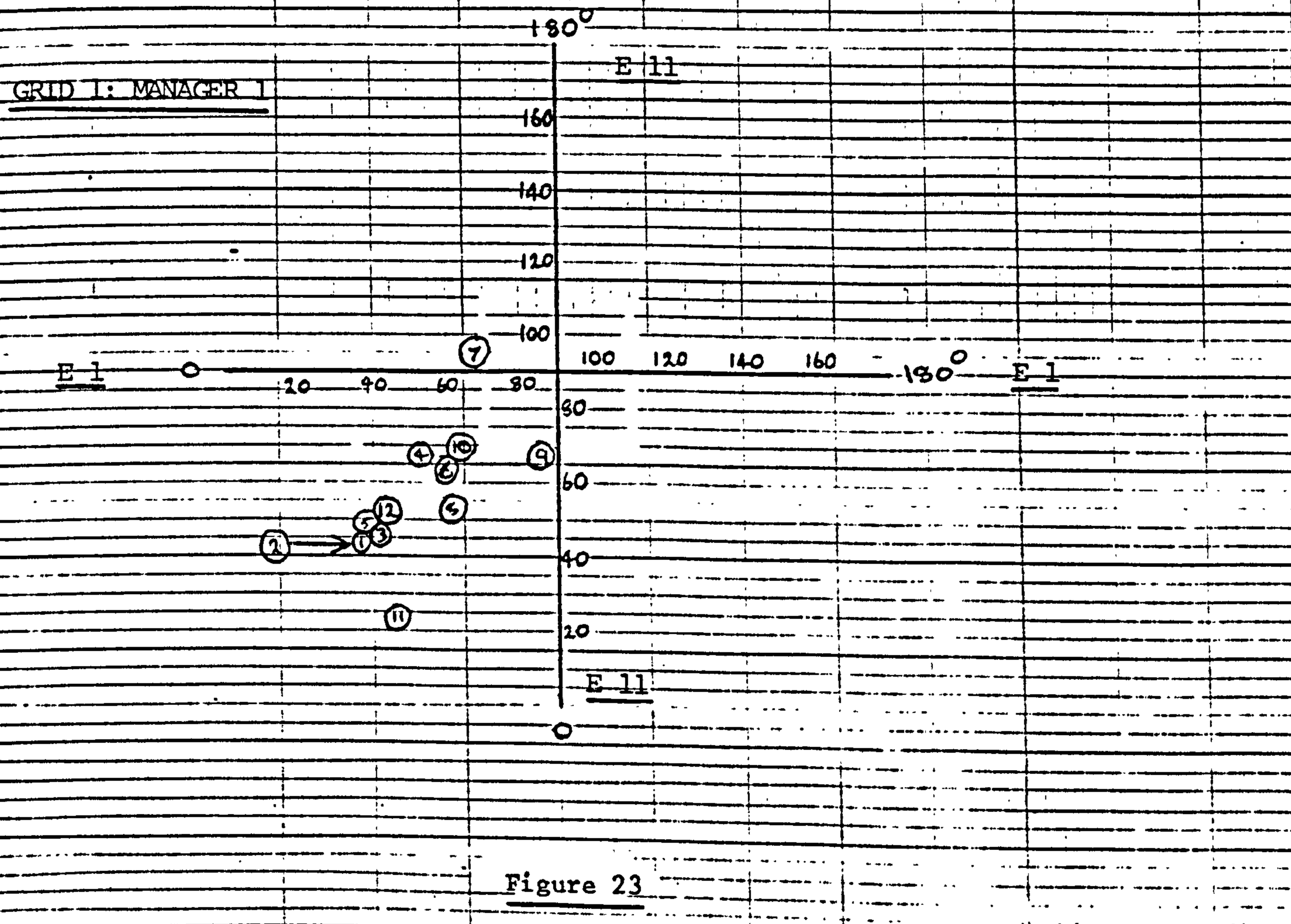



Figure 23

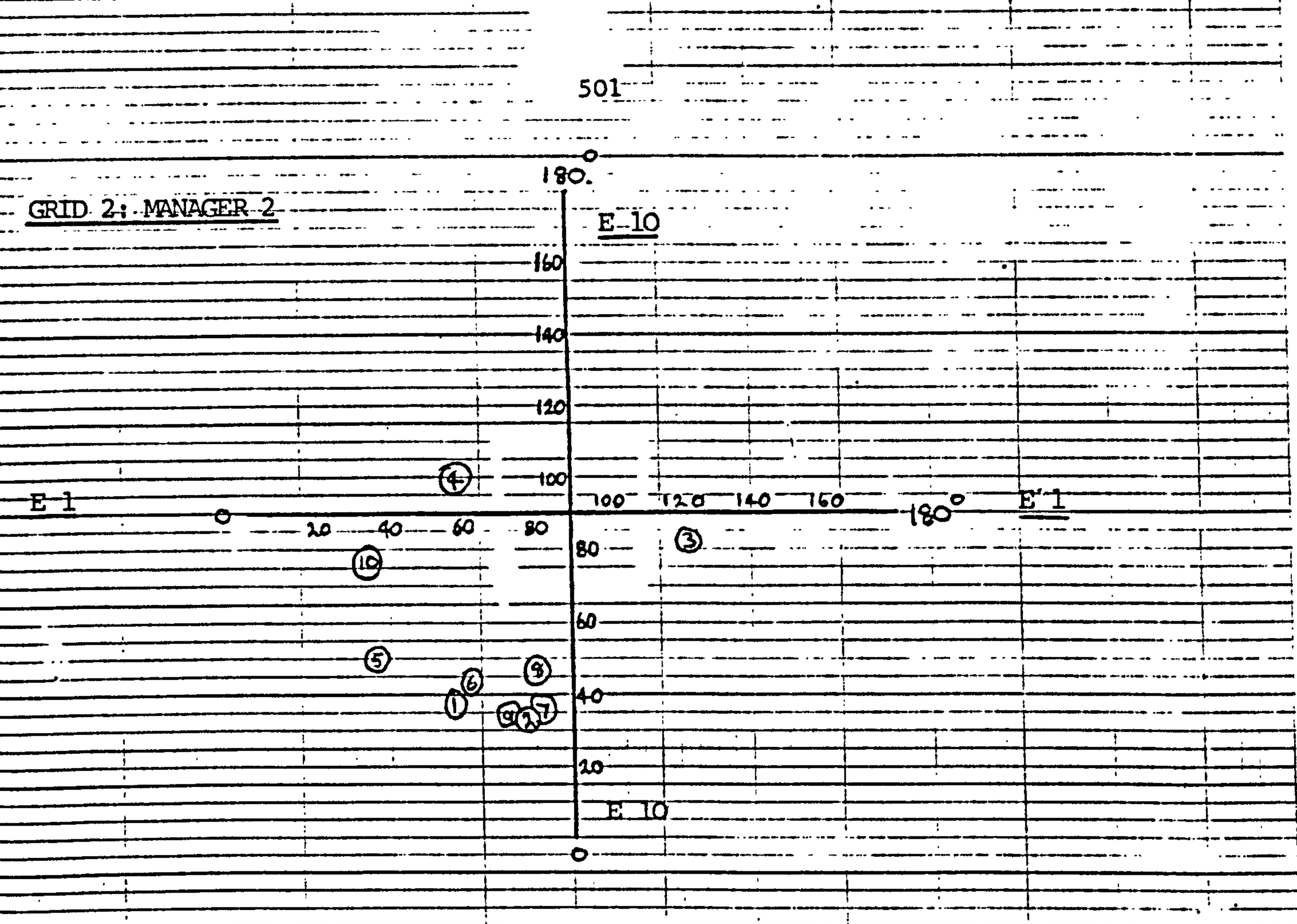



Figure 24

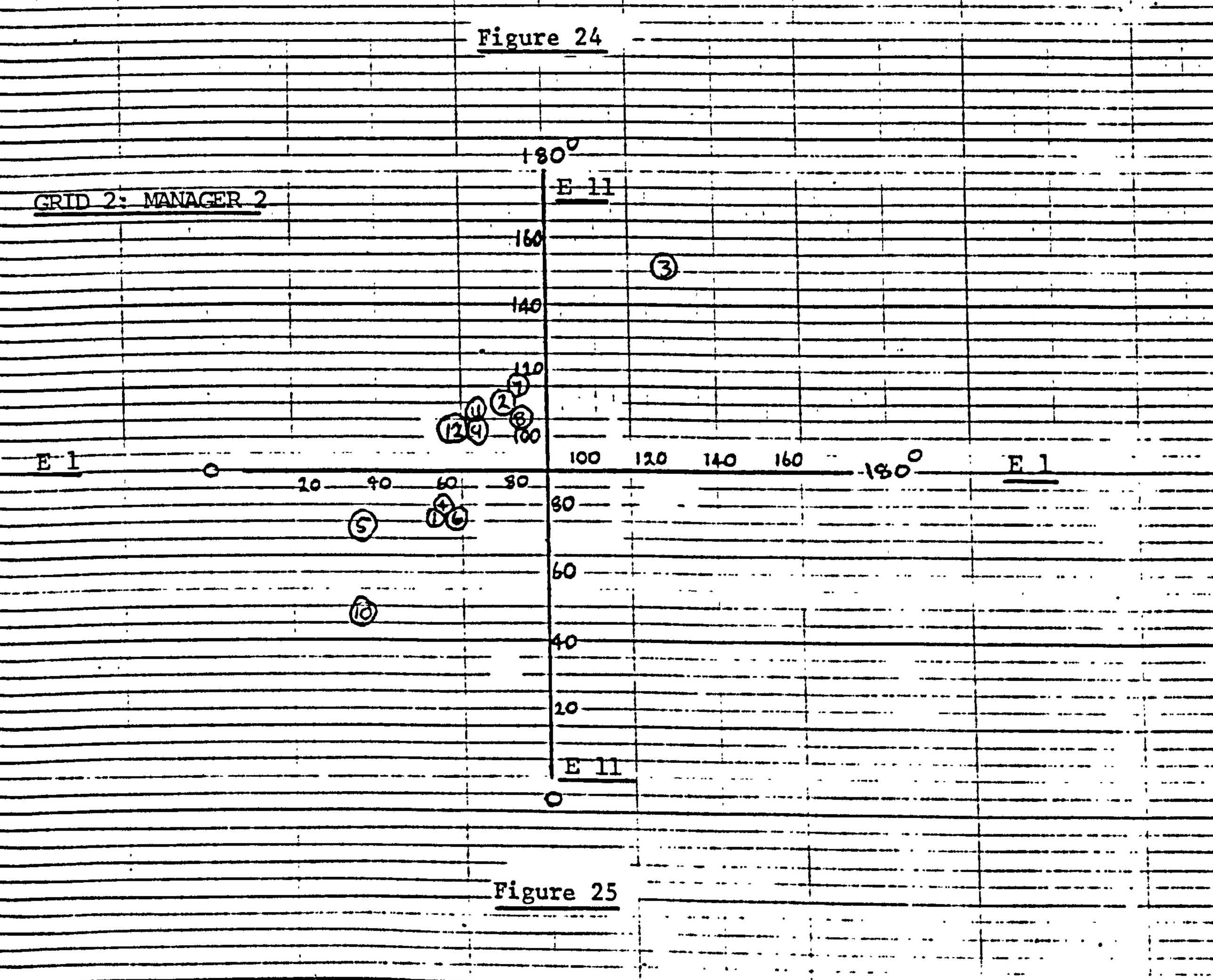



Figure 25

except for not crawling (4), are very much smaller than the organisational self distances. For manager 1, Grid 1, these two groups of figures are much closer. Thus, manager 2 has quite a large discrepancy between his organisation self and ideal self, and to some extent his organisation self and present self, on quite a number of constructs. Indeed, one might surmise that this may have something to do with his frustration.

Diagrams showing the relationship between present self and ideal self, and also present self and organisation self, are produced in figures 22 and 23. These tables show for Grid 1 what might be considered to be a 'normal' distribution. Figure 22 shows a close clustering of the constructs towards the left hand corner. In figure 23 the grouping is similar.

Figures 24 and 25 show the plots in relation to Grid 2. Figure 24 shows a much broader spread than the same plot for Grid 1 (figure 22). Indeed, one construct (3, outgoing) is quite far from the present self. Figure 25 highlights the great discrepancy between what the individual feels he is, and his organisation self. Indeed, on 6 constructs (2,7,8,9,11 and 12) the present self is shown to be very different from the organisation self.

# APPENDIX 8

## GROUP MEAN ELEMENT AND CONSTRUCT DISTANCES

C1 and E10

Mean Element Distances - Group 1

| | Present Self E1 | Ideal Self E10 | Organisation Self E12 | Boss E2 | Boss's Boss E3 |
|---|---|---|---|---|---|
| E1 | -- | .44 | .33 | .48 | .53 |
| E10 | .44 | --- | .55 | .55 | .49 |
| E12 | .33 | .55 | --- | --- | --- |
| E2 | .48 | .55 | --- | --- | --- |
| E3 | .53 | .49 | --- | --- | --- |

Appendix 8.1a

Mean Element Distances - Group 2

| | Present Self E1 | Ideal Self E10 | Organisation Self E12 | Boss E2 | Boss's Boss E3 |
|---|---|---|---|---|---|
| E1 | -- | .54 | .45 | .64 | .82 |
| E10 | .54 | --- | .65 | .65 | .93 |
| E12 | .45 | .65 | --- | --- | --- |
| E2 | .64 | .65 | --- | --- | --- |
| E3 | .82 | .93 | --- | --- | --- |

Appendix 8.1b

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 C1 | Group 2 C1 |
|---|---|---|
| (h) E1 | 40.74 | 74.62 |
| (i) E10 | 24.61 | 68.59 |
| (j) E12 | 57.31 | 76.50 |

Appendix 8.1c

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | --- | 2.45 |
| Group 2 | --- | 3.10 |

Appendix 8.1d

C1 and E12

Mean Element Distances - Group 1

| | Present Self E1 | Ideal Self E10 | Organisation Self E12 | Boss E2 | Boss's Boss E3 |
|---|---|---|---|---|---|
| E1 | -- | .46 | .23 | .37 | .45 |
| E10 | .46 | --- | .47 | .50 | .58 |
| E12 | .23 | .47 | --- | --- | --- |
| E2 | .37 | .50 | --- | --- | --- |
| E3 | .45 | .58 | --- | --- | --- |

Appendix 8.2a

Mean Element Distances - Group 2

| | Present Self E1 | Ideal Self E10 | Organisation Self E12 | Boss E2 | Boss's Boss E3 |
|---|---|---|---|---|---|
| E1 | -- | .58 | .57 | .63 | .68 |
| E10 | .58 | --- | .91 | .76 | .79 |
| E12 | .57 | .91 | --- | --- | --- |
| E2 | .63 | .76 | --- | --- | --- |
| E3 | .68 | .79 | --- | --- | --- |

Appendix 8.2b

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 C1 | Group 2 C1 |
|---|---|---|
| (h) E1 | 30.81 | 70.40 |
| (i) E10 | 35.50 | 52.48 |
| (j) E12 | 32.70 | 110.24 |

Appendix 8.2c

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | --- | 2.00 |
| Group 2 | --- | 3.11 |

Appendix 8.2d

E1 and E10

Mean Element Distances - Group 1

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .27 | .40 | .43 | .52 |
| E10 | .27 | --- | .46 | .41 | .50 |
| E12 | .40 | .46 | --- | --- | --- |
| E2 | .43 | .41 | --- | --- | --- |
| E3 | .52 | .50 | --- | --- | --- |

Appendix 8.3a

Mean Element Distances - Group 2

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .80 | .44 | .65 | .70 |
| E10 | .80 | --- | .82 | .95 | .96 |
| E12 | .44 | .82 | --- | --- | --- |
| E2 | .65 | .95 | --- | --- | --- |
| E3 | .70 | .96 | --- | --- | --- |

Appendix 8.3b

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 | Group 2 |
|---|---|---|
| | C1 | C1 |
| (h) E1 | 37.45 | 59.88 |
| (i) E10 | 37.02 | 43.78 |
| (j) E12 | 49.36 | 73.29 |

Appendix 8.3c

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | 1.33 | 2.50 |
| Group 2 | 2.17 | 2.83 |

Appendix 8.3d

E1 and E12

Mean Element Distances - Group 1

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .45 | .20 | .44 | .60 |
| E10 | .45 | --- | .47 | .50 | .69 |
| E12 | .20 | .47 | --- | --- | --- |
| E2 | .44 | .50 | --- | --- | --- |
| E3 | .60 | .69 | --- | --- | --- |

Appendix 8.4a

Mean Element Distances - Group 2

| | Present Self | Ide l Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .60 | .61 | .65 | .63 |
| E10 | .60 | --- | .80 | .73 | .75 |
| E12 | .61 | .80 | --- | --- | --- |
| E2 | .65 | .73 | --- | --- | --- |
| E3 | .63 | .75 | --- | --- | --- |

Appendix 8.4b

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 | Group 2 |
|---|---|---|
| | C1 | C1 |
| (h) E1 | 42.66 | 55.50 |
| (i) E10 | 38.11 | 42.43 |
| (j) E12 | 40.79 | 80.45 |

Appendix 8.4c

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | 1.43 | 2.21 |
| Group 2 | 1.77 | 2.85 |

Appendix 8.4d

E10 and E12

Mean Element Distances - Group 1

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .29 | .25 | .40 | .56 |
| E10 | .29 | --- | .31 | .36 | .54 |
| E12 | .25 | .31 | --- | --- | --- |
| E2 | .40 | .36 | --- | --- | --- |
| E3 | .56 | .54 | --- | --- | --- |

Appendix 8.5a

Mean Element Distances - Group 2

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .70 | .55 | .63 | .70 |
| E10 | .70 | --- | .95 | .81 | .91 |
| E12 | .55 | .95 | --- | --- | --- |
| E2 | .63 | .81 | --- | --- | --- |
| E3 | .70 | .91 | --- | --- | --- |

Appendix 8.5b

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 | Group 2 |
|---|---|---|
| | C1 | C1 |
| (h) E1 | 38.59 | 82.91 |
| (i) E10 | 34.93 | 47.00 |
| (j) E12 | 38.58 | 93.53 |

Appendix 8.5c

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | 1.56 | 2.33 |
| Group 2 | 2.08 | 2.92 |

Appendix 8.5d

E1 and E2

Mean Element Distances - Group 1

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .42 | .33 | .21 | .48 |
| E10 | .42 | --- | .56 | .46 | .58 |
| E12 | .33 | .56 | --- | --- | --- |
| E2 | .21 | .46 | --- | --- | --- |
| E3 | .48 | .58 | --- | --- | --- |

Appendix 8.6a

Mean Element Distances - Group 2

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .70 | .55 | .63 | .70 |
| E10 | .70 | --- | .95 | .81 | .91 |
| E12 | .55 | .95 | --- | --- | --- |
| E2 | .63 | .81 | --- | --- | --- |
| E3 | .70 | .91 | --- | --- | --- |

Appendix 8.6b

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 | Group 2 |
|---|---|---|
| | C1 | C1 |
| (h) E1 | 35.52 | 65.23 |
| (i) E10 | 34.88 | 53.31 |
| (j) E12 | 42.95 | 73.10 |

Appendix 8.1

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | 1.45 | 2.00 |
| Group 2 | 2.09 | 2.91 |

Appendix 8.6d

E1 and E3

Mean Element Distances - Group 1

| | Present Self E1 | Ideal Self E10 | Organisation Self E12 | Boss E2 | Boss's Boss E3 |
|---|---|---|---|---|---|
| E1 | -- | .44 | .35 | .36 | .36 |
| E10 | .44 | --- | .56 | .50 | .45 |
| E12 | .35 | .56 | --- | --- | --- |
| E2 | .36 | .50 | --- | --- | --- |
| E3 | .36 | .45 | --- | --- | --- |

Appendix 8.7a

Mean Element Distances - Group 2

| | Present Self E1 | Ideal Self E10 | Organisation Self E12 | Boss E2 | Boss's Boss E3 |
|---|---|---|---|---|---|
| E1 | -- | .53 | .39 | .57 | .87 |
| E10 | .53 | --- | .65 | .63 | .99 |
| E12 | .39 | .65 | --- | --- | --- |
| E2 | .57 | .63 | --- | --- | --- |
| E3 | .87 | .99 | --- | --- | --- |

Appendix 8.7b

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 C1 | Group 2 C1 |
|---|---|---|
| (h) E1 | 33.50 | 60.60 |
| (i) E10 | 30.35 | 52.51 |
| (j) E12 | 50.31 | 70.38 |

Appendix 8.7c

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | 2.08 | 1.50 |
| Group 2 | 2.82 | 1.91 |

Appendix 8.7d

E10 and E2

Mean Element Distances - Group 1

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .34 | .36 | .37 | .54 |
| E10 | .34 | --- | .49 | .30 | .53 |
| E12 | .36 | .49 | --- | --- | --- |
| E2 | .37 | .30 | --- | --- | --- |
| E3 | .54 | .53 | --- | --- | --- |

Appendix 8.8a

Mean Element Distances - Group 2

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .69 | .43 | .78 | .66 |
| E10 | .69 | --- | .70 | 1.00 | .98 |
| E12 | .43 | .70 | --- | --- | --- |
| E2 | .78 | 1.00 | --- | --- | --- |
| E3 | .66 | .98 | --- | --- | --- |

Appendix 8.8b

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 | Group 2 |
|---|---|---|
| | C1 | C1 |
| (h) E1 | 42.12 | 53.27 |
| (i) E10 | 36.67 | 42.82 |
| (j) E12 | 52.68 | 68.66 |

Appendix 8.8c

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | 1.45 | 2.64 |
| Group 2 | 1.82 | 2.36 |

Appendix 8.8d

E10 and E3

Mean Element Distances - Group 1

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .35 | .37 | .43 | .47 |
| E10 | .35 | --- | .44 | .39 | .33 |
| E12 | .37 | .44 | --- | --- | --- |
| E2 | .43 | .39 | --- | --- | --- |
| E3 | .47 | .33 | --- | --- | --- |

Appendix 8.9a

Mean Element Distances - Group 2

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .68 | .37 | .62 | .79 |
| E10 | .68 | --- | .70 | .82 | 1.04 |
| E12 | .37 | .70 | --- | --- | --- |
| E2 | .62 | .82 | --- | --- | --- |
| E3 | .79 | 1.04 | --- | --- | --- |

Appendix 8.9b

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 | Group 2 |
|---|---|---|
| | C1 | C1 |
| (h) E1 | 48.27 | 60.40 |
| (i) E10 | 38.75 | 49.22 |
| (j) E12 | 60.83 | 73.11 |

Appendix 8.9c

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | 1.92 | 2.83 |
| Group 2 | 2.18 | 2.64 |

Appendix 8.9d

## Negative E12 on Component 1

### Mean Element Distances - Group 1

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .64 | .40 | .51 | .60 |
| E10 | .64 | --- | .57 | .72 | .81 |
| E12 | .40 | .57 | --- | --- | --- |
| E2 | .51 | .72 | --- | --- | --- |
| E3 | .60 | .81 | --- | --- | --- |

Appendix 8.10a

### Mean Element Distances - Group 2

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .60 | .56 | .58 | .77 |
| E10 | .60 | --- | .97 | .66 | .86 |
| E12 | .56 | .97 | --- | --- | --- |
| E2 | .58 | .66 | --- | --- | --- |
| E3 | .77 | .86 | --- | --- | --- |

Appendix 8.10b

### Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 | Group 2 |
|---|---|---|
| | C1 | C1 |
| (h) E1 | 46.56 | 66.73 |
| (i) E10 | 40.28 | 49.36 |
| (j) E12 | 45.66 | 104.37 |

Appendix 8.10c

### Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | 1.75 | 2.55 |
| Group 2 | 2.15 | 3.29 |

Appendix 8.10d

## C1 and Construct Variation

Mean Element Distances - Group 1

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .46 | .36 | .50 | .57 |
| E10 | .46 | --- | .52 | .57 | .60 |
| E12 | .36 | .52 | --- | --- | --- |
| E2 | .50 | .57 | --- | --- | --- |
| E3 | .57 | .60 | --- | --- | --- |

Appendix 8.11a

Mean Element Distances - Group 2

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .56 | .42 | .66 | .86 |
| E10 | .56 | --- | .70 | .75 | .77 |
| E12 | .42 | .70 | --- | --- | --- |
| E2 | .66 | .75 | --- | --- | --- |
| E3 | .86 | .77 | --- | --- | --- |

Appendix 8.11a

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 | Group 2 |
|---|---|---|
| | C1 | C1 |
| (h) E1 | 40.51 | 59.66 |
| (i) E10 | 40.21 | 46.49 |
| (j) E12 | 50.32 | 69.07 |

Appendix 8.11a

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | --- | 2.40 |
| Group 2 | --- | 2.94 |

Appendix 8.11d

C1 and Component 1

Mean Element Distances - Group 1

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .52 | .38 | .56 | .58 |
| E10 | .52 | --- | .56 | .71 | .73 |
| E12 | .38 | .56 | --- | --- | --- |
| E2 | .56 | .71 | --- | --- | --- |
| E3 | .58 | .73 | --- | --- | --- |

Appendix 8.12a

Mean Element Distances - Group 2

| | Present Self | Ideal Self | Organisation Self | Boss | Boss's Boss |
|---|---|---|---|---|---|
| | E1 | E10 | E12 | E2 | E3 |
| E1 | -- | .59 | .44 | .66 | .70 |
| E10 | .59 | --- | .71 | .76 | .84 |
| E12 | .44 | .71 | --- | --- | --- |
| E2 | .66 | .76 | --- | --- | --- |
| E3 | .70 | .84 | --- | --- | --- |

Appendix 8.12b

Mean Construct 1 Distances - Groups 1 and 2

| | Group 1 | Group 2 |
|---|---|---|
| | C1 | C1 |
| (h) E1 | 38.34 | 66.97 |
| (i) E10 | 35.76 | 53.67 |
| (j) E12 | 48.93 | 81.98 |

Appendix 8.12c

Hard Work Rating

| | Self Rating | External Rating |
|---|---|---|
| Group 1 | --- | 2.63 |
| Group 2 | --- | 2.94 |

Appendix 8.12d

## LANSING

| Category | Manager | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | G | H | I | J | K | L | M | N | O |
| Hard Work External Rtg. | 1 | 2 | 4 | 2 | 2 | 2 | 4 | 2 | 4 | 2 | 2 | 2 | 3 | 1 |
| Hard Work Self Rtg. | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 3 | 1 | 1 |

## SANDVIK

| Category | Manager | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | NA | NB | NC | ND |
| Hard Work External Rtg. | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 4 | 2 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 1 | 3 | 3 | 2 | 4 |
| Hard Work Self Rtg. | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 1 | 2 | 3 | 3 | 2 | 2 | 1 | 2 | 2 | 1 | 3 |

# APPENDIX 9.1

## COMPLETED GRIDS, COMPONENT 1 CONSTRUCT LOADINGS, AND CONSTRUCT CORRELATIONS FOR SANDVIK MANAGERS

Manager A (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | 0.3292 | 0.8600 | 0.1246 |
| 2 | 0.2696 | 0.7042 | 0.1074 |
| 3 | 0.1125 | 0.2940 | 0.6969 |
| 4 | 0.0928 | 0.2425 | 0.0988 |
| 5 | -0.3734 | -0.9755 | 0.1833 |
| 6 | 0.1213 | 0.3168 | 0.0847 |
| 7 | -0.3118 | -0.8145 | 1.1982 |
| 8 | 0.2095 | 0.5473 | 0.1514 |
| 9 | -0.5199 | -1.3582 | 0.4169 |
| 10 | 0.3577 | 0.9343 | 0.1283 |
| 11 | 0.0335 | 0.0875 | 1.1481 |
| 12 | -0.3209 | -0.8383 | 0.6376 |
| CONSTRUCT | | | |
| 1 | 0.2079 | 0.5431 | 0.7051 |
| 2 | 0.2360 | 0.6165 | 0.6199 |
| 3 | 0.3197 | 0.8350 | 0.3027 |
| 4 | 0.2291 | 0.5985 | 0.6418 |
| 5 | 0.3152 | 0.8236 | 0.3217 |
| 6 | 0.3408 | 0.8903 | -0.2073 |
| 7 | 0.2335 | 0.6110 | 0.6267 |
| 8 | 0.3513 | 0.9177 | -0.1578 |
| 9 | 0.2950 | 0.7707 | 0.4060 |
| 10 | 0.2644 | 0.6907 | 0.5229 |
| 11 | 0.3083 | 0.8054 | 0.3513 |
| 12 | 0.3172 | 0.8289 | 0.3129 |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Present s.. | | | | | | | | | | | |
| 1 | HARD WORKING | NOT HARD WORKING | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 |
| 2 | KNOWLEGEABLE | REMOTE | 1 | 2 | 4 | 2 | 3 | 2 | 6 | 2 | 3 | 1 | 1 | 3 |
| 3 | ENTHUSIASTIC | ISOLATED | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 3 | 1 | 3 | 3 |
| 4 | SOCIABLE | UNSOCIABLE | 1 | 1 | 1 | 1 | 2 | 1 | 6 | 1 | 3 | 1 | 1 | 1 |
| 5 | DYNAMIC | NEGATIVE | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 1 | 3 | 1 | 3 | 3 |
| 6 | EFFECTIVE MANAGER | NOT EFFECTIVE | 1 | 1 | 2 | 2 | 3 | 2 | 3 | 1 | 3 | 1 | 3 | 3 |
| 7 | BETTER LEADER | POOR LEADER | 1 | 1 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 1 | 2 | 1 |
| 8 | POSITIVE | HESITANT | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 3 | 1 | 1 | 3 |
| 9 | PROBLEM SOLVER | DOESNT SEE ALL FACTS | 1 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 1 | 1 | 3 |
| 10 | CONTENTED | UNHAPPY | 1 | 1 | 1 | 2 | 3 | 2 | 1 | 1 | 3 | 1 | 3 | 3 |
| 11 | FORESEEING | RESTRICTED | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 4 | 2 | 1 | 3 |
| 12 | PERSUADES | DRIVES | 2 | 2 | 1 | 3 | 4 | 2 | 4 | 3 | 4 | 1 | 2 | 5 |

Completed Grid - Manager A (Sandvik)

Manager A (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | 0.3292 | 0.8600 | 0.1246 |
| 2 | 0.2696 | 0.7042 | 0.1074 |
| 3 | 0.1125 | 0.2940 | 0.6969 |
| 4 | 0.0928 | 0.2425 | 0.0988 |
| 5 | -0.3734 | -0.9755 | 0.1833 |
| 6 | 0.1213 | 0.3168 | 0.0847 |
| 7 | -0.3118 | -0.8145 | 1.1983 |
| 8 | 0.2095 | 0.5473 | 0.1514 |
| 9 | -0.5199 | -1.3582 | 0.6169 |
| 10 | 0.3577 | 0.9343 | 0.1283 |
| 11 | 0.0335 | 0.0875 | 1.1481 |
| 12 | -0.3209 | -0.8383 | 0.6376 |
| CONSTRUCT | | | |
| 1 | 0.2079 | 0.5431 | 0.7051 |
| 2 | 0.2360 | 0.6165 | 0.6199 |
| 3 | 0.3197 | 0.8350 | 0.3027 |
| 4 | 0.2291 | 0.5985 | 0.6418 |
| 5 | 0.3152 | 0.8234 | 0.3217 |
| 6 | 0.3408 | 0.8903 | 0.2073 |
| 7 | 0.2339 | 0.6110 | 0.6267 |
| 8 | 0.3513 | 0.9177 | 0.1578 |
| 9 | 0.2950 | 0.7707 | 0.4060 |
| 10 | 0.2644 | 0.6907 | 0.5229 |
| 11 | 0.3083 | 0.8054 | 0.3513 |
| 12 | 0.3173 | 0.8289 | 0.3129 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS

Manager A (Sandvik)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.109 | 83.75 | 3 | 0.408 | 65.93 | 4 | 0.280 | 73.72 | 5 | 0.379 | 67.73 | 6 | 0.321 | 71 |
| 7 | 0.369 | 68.33 | 8 | 0.496 | 60.30 | 9 | 0.314 | 71.68 | 10 | 0.392 | 66.93 | 11 | 0.674 | 47 |
| 12 | 0.306 | 72.20 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.228 | 76.82 | 4 | 0.798 | 37.09 | 5 | 0.175 | 79.95 | 6 | 0.524 | 58.42 | 7 | 0.663 | 48 |
| 8 | 0.454 | 63.01 | 9 | 0.828 | 34.07 | 10 | -0.067 | 93.85 | 11 | 0.565 | 55.58 | 12 | 0.464 | 62 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.314 | 71.67 | 5 | 0.915 | 23.76 | 6 | 0.863 | 30.35 | 7 | 0.331 | 70.65 | 8 | 0.811 | 35 |
| 9 | 0.395 | 66.75 | 10 | 0.854 | 31.36 | 11 | 0.484 | 61.06 | 12 | 0.676 | 47.44 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.247 | 75.69 | 6 | 0.494 | 60.36 | 7 | 0.569 | 55.28 | 8 | 0.427 | 64.72 | 9 | 0.485 | 61 |
| 10 | -0.043 | 92.47 | 11 | 0.572 | 55.12 | 12 | 0.471 | 61.88 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.907 | 24.97 | 7 | 0.355 | 69.19 | 8 | 0.738 | 42.41 | 9 | 0.383 | 67.48 | 10 | 0.951 | 17 |
| 11 | 0.432 | 64.38 | 12 | 0.686 | 46.69 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.392 | 53.70 | 8 | 0.720 | 43.98 | 9 | 0.585 | 54.23 | 10 | 0.772 | 39.47 | 11 | 0.476 | 61 |
| 12 | 0.647 | 49.70 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.355 | 69.19 | 9 | 0.638 | 50.32 | 10 | 0.227 | 76.85 | 11 | 0.411 | 65.75 | 12 | 0.248 | 75 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.706 | 45.13 | 10 | 0.664 | 48.38 | 11 | 0.865 | 30.15 | 12 | 0.843 | 32.57 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.271 | 74.27 | 11 | 0.746 | 41.75 | 12 | 0.634 | 50.65 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.332 | 70.60 | 12 | 0.565 | 55.62 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.725 | 43.51 | | | | | | | | | | | | |

Completed Grid - Manager B (Sandvik)

ELEMENTS

NSTRUCTS

| POSITIVE | NEGATIVE | Present S... | | | 4 H | | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hard Working | Not Hard Working | 1 | 2 | 5 | 3 | 6 | 1 | 5 | 1 | 1 | 1 | 2 | 2 |
| 1 2 3 4 5 6 7 | | | | | | | | | | | | | |
| LOGICAL | NOT LOGICAL | 2 | 1 | 6 | 4 | 4 | 1 | 5 | 1 | 3 | 1 | 3 | 2 |
| CHANGE | NO CHANGE | 2 | 1 | 2 | 4 | 6 | 2 | 3 | 1 | 6 | 2 | 2 | 2 |
| NOT DOGMATIC | DOGMATIC | 1 | 1 | 2 | 6 | 6 | 2 | 4 | 1 | 5 | 2 | 1 | 2 |
| NOT AGRESSIVE | AGRESSIVE | 2 | 2 | 5 | 1 | 5 | 1 | 6 | 1 | 6 | 1 | 2 | 1 |
| REFLECTIVE | QUICK THINKING | 3 | 7 | 4 | 4 | 1 | 6 | 4 | 3 | 4 | 5 | 3 | 4 |
| PERSUADABLE | IRRASIBLE | 2 | 1 | 3 | 1 | 4 | 1 | 7 | 1 | 4 | 1 | 2 | 2 |
| LEARNING | SECURE | 2 | 2 | 4 | 6 | 7 | 3 | 6 | 1 | 5 | 2 | 1 | 2 |
| WILLING | HANDLING | 1 | 1 | 3 | 2 | 6 | 1 | 4 | 1 | 4 | 1 | 1 | 1 |
| NOT NA... | NAIVE | 3 | 2 | 3 | 3 | 4 | 5 | 5 | 2 | 4 | 1 | 3 | 3 |
| LATER | ENTHUSIAST | 2 | 3 | 5 | 3 | 4 | 7 | 4 | 2 | 2 | 3 | 2 | 3 |
| NOT ASSERTIVE FORCEFUL | LESS ASSERTIVE | 3 | 2 | 2 | 5 | 4 | 3 | 1 | 2 | 2 | 1 | 3 | 2 |
| 1 2 3 4 5 6 7 | | | | | | | | | | | | | |

## Manager B (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.1721 | -0.4224 | 0.2326 |
| 2 | -0.3049 | -0.7485 | 0.3957 |
| 3 | 0.0866 | 0.2127 | 0.6507 |
| 4 | 0.1305 | 0.3203 | 0.9113 |
| 5 | 0.5827 | 1.4302 | 0.3362 |
| 6 | -0.0702 | -0.1723 | 1.3798 |
| 7 | 0.4147 | 1.0178 | 0.6586 |
| 8 | -0.3123 | -0.7665 | 0.2287 |
| 9 | 0.2905 | 0.7141 | 0.5995 |
| 10 | -0.3159 | -0.7753 | 0.2884 |
| 11 | -0.1571 | -0.3856 | 0.2364 |
| 12 | -0.1725 | -0.4244 | 0.0565 |
| CONSTRUCT | | | |
| 1 | -0.3044 | -0.7471 | 0.4418 |
| 2 | -0.2286 | -0.5611 | 0.6851 |
| 3 | -0.3434 | -0.8430 | 0.2894 |
| 4 | -0.3448 | -0.8462 | 0.2837 |
| 5 | -0.3267 | -0.8020 | 0.3568 |
| 6 | 0.1980 | 0.4859 | 0.7639 |
| 7 | -0.3205 | -0.7867 | 0.3811 |
| 8 | -0.3492 | -0.8571 | 0.2653 |
| 9 | -0.3861 | -0.9478 | 0.1016 |
| 10 | -0.2894 | -0.7103 | 0.4955 |
| 11 | -0.0494 | -0.1213 | 0.9853 |
| 12 | -0.1114 | -0.2733 | 0.9253 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager B (Sandvik)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | |
| 2 | 0.432 | 61.19 | 3 | 0.391 | 66.99 | 4 | 0.518 | 58.77 | 5 | 0.627 | 51.16 | 6 | -0.419 | 114.7 |
| 7 | 0.636 | 50.52 | 8 | 0.516 | 58.93 | 9 | 0.760 | 40.57 | 10 | 0.374 | 68.05 | 11 | 0.285 | 73.4 |
| 12 | 0.170 | 80.22 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | |
| 3 | 0.258 | 75.04 | 4 | 0.341 | 70.05 | 5 | 0.384 | 67.41 | 6 | 0.000 | 90.00 | 7 | 0.365 | 68.6 |
| 8 | 0.339 | 70.21 | 9 | 0.387 | 67.21 | 10 | 0.779 | 38.87 | 11 | 0.651 | 49.39 | 12 | 0.252 | 75.3 |
| CONSTRUCT 3 | | | | | | | | | | | |
| 4 | 0.901 | 25.74 | 5 | 0.615 | 52.07 | 6 | -0.483 | 118.91 | 7 | 0.500 | 60.00 | 8 | 0.829 | 33.9 |
| 9 | 0.829 | 33.98 | 10 | 0.467 | 62.15 | 11 | -0.152 | 98.77 | 12 | 0.386 | 67.27 | | | |
| CONSTRUCT 4 | | | | | | | | | | | |
| 5 | 0.493 | 60.48 | 6 | -0.362 | 111.23 | 7 | 0.462 | 62.48 | 8 | 0.935 | 20.85 | 9 | 0.779 | 38.8 |
| 10 | 0.447 | 63.45 | 11 | -0.015 | 90.85 | 12 | 0.457 | 62.82 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | |
| 6 | -0.311 | 108.09 | 7 | 0.883 | 28.04 | 8 | 0.501 | 59.93 | 9 | 0.857 | 31.02 | 10 | 0.527 | 58.1 |
| 11 | 0.042 | 87.62 | 12 | -0.204 | 101.80 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | |
| 7 | -0.355 | 110.80 | 8 | -0.294 | 107.13 | 9 | -0.523 | 121.52 | 10 | -0.149 | 98.55 | 11 | 0.528 | 58.1 |
| 12 | -0.354 | 110.76 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | |
| 8 | 0.565 | 55.57 | 9 | 0.765 | 40.07 | 10 | 0.631 | 50.90 | 11 | -0.016 | 90.91 | 12 | -0.276 | 106.0 |
| CONSTRUCT 8 | | | | | | | | | | | |
| 9 | 0.768 | 39.81 | 10 | 0.575 | 54.92 | 11 | 0.079 | 85.48 | 12 | 0.388 | 67.19 | | | |
| CONSTRUCT 9 | | | | | | | | | | | |
| 10 | 0.524 | 58.41 | 11 | 0.068 | 86.08 | 12 | 0.138 | 82.09 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | |
| 11 | 0.389 | 67.11 | 12 | 0.196 | 78.71 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | |
| 12 | 0.000 | 90.00 | | | | | | | | | | | | |

Completed Grid - Manager C (Sandvik)

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 J. IP ... | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING | 1 | 3 | 2 | 2 | 5 | 3 | | 2 | 3 | 1 | 1 | 1 |
| 2 | BROAD VISION | NARROW VISION | 2 | 4 | 5 | 2 | 6 | 2 | | 3 | 6 | 1 | 4 | 5 |
| 3 | COMMITMENT | NON COMMITMENT | 1 | 1 | 1 | 3 | 7 | 4 | | 3 | 5 | 1 | 1 | 1 |
| 4 | AMBITIOUS | NON AMBITIOUS | 2 | 1 | 1 | 4 | 7 | 2 | | 2 | 7 | 2 | 2 | 4 |
| 5 | NON ARROGANCE | ARROGANCE | 2 | 6 | 7 | 1 | 7 | 4 | | 1 | 1 | 1 | 1 | 1 |
| 6 | LEADERSHIP | NON LEADER | 3 | 1 | 2 | 4 | 6 | 3 | | 4 | 7 | 2 | 3 | 3 |
| 7 | MAKES THINGS HAPPEN | LETS THINGS HAPPEN | 1 | 1 | 1 | 1 | 6 | 3 | | 4 | 7 | 1 | 1 | 1 |
| 8 | LESS SMALL TALK | TALKS OF INTEREST | 1 | 3 | 1 | 2 | 1 | 3 | | 5 | 5 | 1 | 4 | 2 |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |

1 2 3 4 5 6 7

## Manager C (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | 0.2584 | 0.5516 | 0.1113 |
| 2 | 0.1670 | 0.3565 | 0.4581 |
| 3 | 0.1702 | 0.3634 | 0.5373 |
| 4 | 0.0520 | 0.1109 | 0.2178 |
| 5 | -0.6350 | -1.3555 | 0.4489 |
| 6 | -0.0211 | -0.0450 | 0.2421 |
| 7 | -0.0440 | -0.0939 | 0.2917 |
| 8 | -0.5640 | -1.2041 | 0.3572 |
| 9 | 0.3258 | 0.6955 | 0.1761 |
| 10 | 0.1735 | 0.3704 | 0.2262 |
| 11 | 0.1171 | 0.2501 | 0.2761 |
| CONSTRUCT | | | |
| 1 | 0.3788 | 0.8057 | 0.3460 |
| 2 | 0.3070 | 0.6555 | 0.5704 |
| 3 | 0.4381 | 0.9352 | 0.1254 |
| 4 | 0.4100 | 0.8752 | 0.2341 |
| 5 | 0.1007 | 0.2149 | 0.9538 |
| 6 | 0.4211 | 0.8990 | 0.1919 |
| 7 | 0.4428 | 0.9454 | 0.1043 |
| 8 | 0.1366 | 0.2917 | 0.9149 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager C (Sandvik)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.491 | 60.60 | 3 | 0.848 | 32.05 | 4 | 0.547 | 56.83 | 5 | 0.655 | 49.09 | 6 | 0.506 | 59.6 |
| 7 | 0.713 | 44.49 | 8 | 0.046 | 87.35 | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.393 | 66.89 | 4 | 0.564 | 55.64 | 5 | 0.390 | 67.04 | 6 | 0.484 | 61.07 | 7 | 0.529 | 58.0 |
| 8 | 0.169 | 79.13 | | | | | | | | | | | | |
| UNSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.792 | 37.63 | 5 | 0.235 | 76.43 | 6 | 0.835 | 33.33 | 7 | 0.887 | 27.56 | 8 | 0.176 | 79.8 |
| UNSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | -0.070 | 94.00 | 6 | 0.910 | 24.51 | 7 | 0.770 | 39.68 | 8 | 0.101 | 84.18 | | | |
| UNSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | -0.166 | 99.58 | 7 | 0.094 | 84.63 | 8 | -0.405 | 113.86 | | | | | | |
| UNSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.880 | 28.41 | 8 | 0.336 | 70.34 | | | | | | | | | |
| UNSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.431 | 64.45 | | | | | | | | | | | | |

ONSTRUCTS

ELEMENTS

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Present Self | Ta... | | | | | | | | | | |
| 1 | HARD WORKING | NOT HARD WORKING | 2 | 2 | 2 | 3 | 5 | 3 | 6 | 2 | 4 | 1 | 1 | 2 |
| 2 | ANALYTICAL DECISION MAKER (AVG) | IMPULSIVE DECISION MKR | 2 | 1 | 4 | 4 | 6 | 3 | 4 | 2 | 5 | 1 | 4 | 3 |
| 3 | ACCURATE, THOROUGH | SLOPPY, UNTIDY | 2 | 1 | 4 | 4 | 7 | 2 | 4 | 2 | 3 | 1 | 4 | 3 |
| 4 | GOOD COMMUNICATOR | POOR COMMUNICATOR | 4 | 5 | 6 | 4 | 6 | 3 | 6 | 4 | 4 | 1 | 4 | 4 |
| 5 | SOCIALABLE | ANTI - SOCIALABLE | 3 | 4 | 4 | 3 | 7 | 3 | 6 | 3 | 3 | 3 | 2 | 2 |
| 6 | SUPPORTIVE | NON - SUPPORTIVE | 3 | 3 | 5 | 4 | 6 | 2 | 7 | 4 | 3 | 1 | 4 | 3 |
| 7 | LOYAL | DIS-LOYAL | 3 | 4 | 2 | 4 | 7 | 2 | 7 | 2 | 4 | 1 | 4 | 2 |
| 8 | RESPECT | NOT RESPECTED | 2 | 2 | 2 | 4 | 7 | 3 | 7 | 3 | 4 | 1 | 3 | 2 |
| 9 | AMBITIOUS | LACKING IN AMBITION | 2 | 1 | 1 | 2 | 5 | 4 | 6 | 1 | 6 | 1 | 1 | 2 |
| 10 | KEEN | COMPLACENT | 2 | 2 | 2 | 4 | 6 | 4 | 6 | 2 | 6 | 1 | 5 | 2 |
| 11 | HELPFUL | OBSTRUCTIVE | 3 | 3 | 4 | 4 | 7 | 3 | 7 | 3 | 4 | 1 | 4 | 2 |
| 12 | DEDICATED | NOT DEDICATED | 2 | 1 | 2 | 4 | 7 | 3 | 7 | 2 | 5 | 1 | 3 | 3 |

1 2 3 4 5 6 7

Completed Grid - Manager D (Sandvik)

## Manager D (Sandvik)

COMPONENT · 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.1782 | -0.5359 | 0.0388 |
| 2 | -0.1905 | -0.5728 | 0.3802 |
| 3 | -0.0342 | -0.1028 | 0.5141 |
| 4 | 0.0562 | 0.1690 | 0.0857 |
| 5 | 0.5871 | 1.7651 | 0.1430 |
| 6 | -0.1023 | -0.3076 | 0.2559 |
| 7 | 0.5341 | 1.6059 | 0.2280 |
| 8 | -0.1730 | -0.5202 | 0.0989 |
| 9 | 0.1575 | 0.4734 | 0.4747 |
| 10 | -0.4462 | -1.3415 | 0.2348 |
| 11 | -0.0302 | -0.0909 | 0.3954 |
| 12 | -0.1802 | -0.5419 | 0.1105 |
| CONSTRUCT | | | |
| 1 | -0.3014 | -0.9062 | 0.1788 |
| 2 | -0.2744 | -0.8250 | 0.3194 |
| 3 | -0.2752 | -0.8275 | 0.3153 |
| 4 | -0.2415 | -0.7260 | 0.4730 |
| 5 | -0.2623 | -0.7886 | 0.3781 |
| 6 | -0.2822 | -0.8504 | 0.2769 |
| 7 | -0.3044 | -0.9152 | 0.1625 |
| 8 | -0.3220 | -0.9682 | 0.0627 |
| 9 | -0.2586 | -0.7776 | 0.3953 |
| 10 | -0.2864 | -0.8612 | 0.2584 |
| 11 | -0.3243 | -0.9751 | 0.0492 |
| 12 | -0.3172 | -0.9537 | 0.0905 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager D (Sandvik)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.638 | 50.35 | 3 | 0.570 | 55.22 | 4 | 0.569 | 55.32 | 5 | 0.772 | 39.44 | 6 | 0.683 | 46. |
| 7 | 0.808 | 36.12 | 8 | 0.918 | 23.34 | 9 | 0.905 | 25.13 | 10 | 0.766 | 40.03 | 11 | 0.842 | 32. |
| 12 | 0.914 | 23.90 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.904 | 25.33 | 4 | 0.548 | 56.75 | 5 | 0.440 | 63.90 | 6 | 0.630 | 50.96 | 7 | 0.625 | 51. |
| 8 | 0.735 | 42.73 | 9 | 0.642 | 50.02 | 10 | 0.828 | 34.08 | 11 | 0.759 | 40.65 | 12 | 0.829 | 34. |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.639 | 50.31 | 5 | 0.591 | 53.74 | 6 | 0.760 | 40.51 | 7 | 0.688 | 46.52 | 8 | 0.752 | 41. |
| 9 | 0.440 | 63.93 | 10 | 0.677 | 47.41 | 11 | 0.807 | 36.23 | 12 | 0.781 | 38.64 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.648 | 49.63 | 6 | 0.877 | 28.73 | 7 | 0.679 | 47.26 | 8 | 0.598 | 53.24 | 9 | 0.317 | 71. |
| 10 | 0.424 | 64.89 | 11 | 0.788 | 38.01 | 12 | 0.528 | 58.16 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.719 | 44.00 | 7 | 0.767 | 39.96 | 8 | 0.775 | 39.20 | 9 | 0.550 | 56.66 | 10 | 0.465 | 62. |
| 11 | 0.813 | 35.61 | 12 | 0.665 | 48.34 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.781 | 38.66 | 8 | 0.798 | 37.03 | 9 | 0.408 | 65.92 | 10 | 0.568 | 55.41 | 11 | 0.909 | 24. |
| 12 | 0.719 | 44.06 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.906 | 25.02 | 9 | 0.654 | 49.13 | 10 | 0.800 | 36.85 | 11 | 0.921 | 22.98 | 12 | 0.846 | 32. |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.792 | 38.55 | 10 | 0.854 | 31.38 | 11 | 0.938 | 20.31 | 12 | 0.956 | 16.97 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.815 | 35.45 | 11 | 0.665 | 48.34 | 12 | 0.862 | 30.51 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.807 | 36.18 | 12 | 0.891 | 27.03 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.875 | 28.90 | | | | | | | | | | | | |

INSTRUCTS

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARDWORKING | 1 | 1 | 1 | 3 | 6 | 2 | | 3 | 4 | 1 | 3 | 2 |
| 2 | GOOD COMMUNICATOR | BAD COMMUNICATOR | 2 | 2 | 2 | 3 | 7 | 3 | | 4 | 5 | 2 | 4 | 2 |
| 3 | ADAPTABILITY | RESENT CHANGE | 1 | 1 | 1 | 2 | 4 | 2 | | 2 | 4 | 2 | 2 | 3 |
| 4 | COMFORTABLE TO COMMUNICATE | DIFFICULT | 2 | 1 | 1 | 2 | 3 | 2 | | 2 | 4 | 1 | 2 | 3 |
| 5 | EFFETIVENESS | LESS EFFECTIVE | 2 | 2 | 2 | 3 | 4 | 2 | | 3 | 3 | 2 | 3 | 2 |
| 6 | HELPFUL | LESS HELPFULL | 1 | 2 | 1 | 2 | 4 | 1 | | 1 | 2 | 2 | 2 | 1 |
| 7 | WILLINGNESS TO LEARN | LESS WILLINGNESS TO LEARN | 1 | 1 | 1 | 1 | 3 | 1 | | 1 | 3 | 1 | 1 | 2 |
| 8 | MORE TOLERANT | LESS TOLERANT | 1 | 1 | 1 | 1 | 2 | 1 | | 2 | 5 | 1 | 3 | 3 |
| 9 | SOCIALLY AWARE | LESS SOCIALLY AWARE | 1 | 1 | 1 | 3 | 3 | 1 | | 3 | 2 | 1 | 3 | 1 |
| 10 | RESPONSIBLE ATTITUDE | LESS RESPONSIBLE | 1 | 1 | 1 | 2 | 3 | 1 | | 3 | 3 | 1 | 2 | 1 |
| 11 | CONSTANTLY LEARNING | NOT LEARNING | 1 | 3 | 1 | 1 | 3 | 1 | | 1 | 1 | 1 | 3 | 1 |
| 12 | | | | | | | | | | | | | | |

Completed Grid - Manager E (Sandvik)

Manager E (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.2847 | -0.7622 | 0.0626 |
| 2 | -0.2512 | -0.6725 | 0.4770 |
| 3 | -0.3208 | -0.8588 | 0.0389 |
| 4 | 0.0360 | 0.0963 | 0.3299 |
| 5 | 0.6479 | 1.7347 | 0.4264 |
| 6 | -0.1955 | -0.5234 | 0.1163 |
| 7 | 0.0524 | 0.1474 | 0.4914 |
| 8 | 0.4463 | 1.1950 | 0.6842 |
| 9 | -0.2498 | -0.6687 | 0.1565 |
| 10 | 0.1407 | 0.3766 | 0.4445 |
| 11 | -0.0613 | -0.1642 | 0.6039 |
| CONSTRUCT | | | |
| 1 | -0.3650 | -0.9773 | 0.0449 |
| 2 | -0.3566 | -0.9547 | 0.0885 |
| 3 | -0.3267 | -0.8747 | 0.2349 |
| 4 | -0.2879 | -0.7709 | 0.4058 |
| 5 | -0.3455 | -0.9250 | 0.1444 |
| 6 | -0.2697 | -0.7222 | 0.4784 |
| 7 | -0.3063 | -0.8201 | 0.3274 |
| 8 | -0.2438 | -0.6526 | 0.5739 |
| 9 | -0.2744 | -0.7345 | 0.4604 |
| 10 | -0.3330 | -0.8914 | 0.2053 |
| 11 | -0.1359 | -0.3638 | 0.8676 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager E (Sandvik)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.968 | 14.48 | 3 | 0.831 | 33.83 | 4 | 0.710 | 44.72 | 5 | 0.950 | 18.17 | 6 | 0.729 | 43. |
| 7 | 0.754 | 41.04 | 8 | 0.511 | 59.25 | 9 | 0.771 | 39.51 | 10 | 0.869 | 29.63 | 11 | 0.359 | 69. |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.771 | 39.57 | 4 | 0.637 | 50.44 | 5 | 0.932 | 21.32 | 6 | 0.739 | 42.34 | 7 | 0.726 | 43. |
| 8 | 0.488 | 60.78 | 9 | 0.727 | 43.38 | 10 | 0.876 | 23.86 | 11 | 0.421 | 65.10 | | | |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.866 | 29.99 | 5 | 0.662 | 48.56 | 6 | 0.568 | 55.37 | 7 | 0.914 | 23.87 | 8 | 0.726 | 43. |
| 9 | 0.412 | 65.66 | 10 | 0.671 | 47.87 | 11 | 0.090 | 84.82 | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.532 | 57.84 | 6 | 0.266 | 74.56 | 7 | 0.845 | 32.28 | 8 | 0.822 | 34.70 | 9 | 0.343 | 69. |
| 10 | 0.618 | 51.86 | 11 | -0.062 | 93.55 | | | | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.745 | 41.30 | 7 | 0.580 | 54.53 | 8 | 0.397 | 66.64 | 9 | 0.902 | 25.52 | 10 | 0.906 | 25.0 |
| 11 | 0.425 | 64.37 | | | | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.588 | 53.97 | 8 | 0.147 | 81.56 | 9 | 0.502 | 59.89 | 10 | 0.511 | 59.26 | 11 | 0.667 | 48.1 |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.699 | 45.66 | 9 | 0.237 | 76.28 | 10 | 0.588 | 53.97 | 11 | 0.166 | 80.44 | | | |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.299 | 72.60 | 10 | 0.572 | 55.11 | 11 | 0.045 | 87.43 | | | | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.840 | 32.91 | 11 | 0.337 | 70.30 | | | | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.194 | 78.83 | | | | | | | | | | | | |

ELEMENTS

| ONSTRUCTS | POSITIVE | NEGATIVE | Present c.. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING. | 2 | 2 | 2 | 4 | 5 | 4 | 2 | 1 | 4 | 2 | 1 | 3. |
| 2 | AGGRESIVE | PASSIVE. | 4 | 1 | 2 | 6 | 6 | 4 | 3 | 3 | 6 | 3 | 3 | 4 |
| 3 | CONSCIENTIOUS | SLOPPY | 1 | 2 | 1 | 2 | 6 | 3 | 4 | 3 | 5 | 1 | 2 | 2 |
| 4 | GENUINE | FALSE. | 2 | 3 | 3 | 2 | 5 | 1 | 7 | 4 | 3 | 1 | 2 | 1 |
| 5 | AMBITIOUS | NOT AMBITIOUS. | 2 | 1 | 1 | 5 | 7 | 4 | 3 | 1 | 5 | 2 | 3 | 2. |
| 6 | GOOD ORGANISER | BAD ORGANISER. | 1 | 1 | 1 | 3 | 5 | 4 | 2 | 4 | 5 | 1 | 1 | 1 |
| 7 | TRUST | NOT TRUSTWORTHY | 2 | 3 | 1 | 2 | 7 | 4 | 7 | 5 | 5 | 1 | 3 | 2 |
| 8 | CONTROL | NOT CONTROLLED | 3 | 2 | 3 | 4 | 7 | 4 | 4 | 4 | 4 | 2 | 4 | 3 |
| 9 | POSITIVE ATTITUDE | NEG. ATTITUDE. | 2 | 1 | 1 | 3 | 4 | 4 | 3 | 4 | 6 | 1 | 2 | 2 |
| 10 | RESPECTED | NOT RESPECTED. | 3 | 1 | 1 | 5 | 7 | 3 | 6 | 5 | 5 | 3 | 3 | 3 |
| 11 | CONFIDENT | NOT CONFIDENT | 2 | 1 | 1 | 2 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 1 |
| 12 | FRIENDLY | ABRASIVE. | 4 | 3 | 2 | 2 | 2 | 1 | 5 | 5 | 4 | 3 | 2 | 2 |

1 2 3 4 5 6 7

Completed Grid - Manager F (Sandvik)

Manager F (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | 0.1932 | 0.5243 | 0.1419 |
| 2 | 0.3387 | 0.9194 | 0.2461 |
| 3 | 0.3512 | 0.9532 | 0.1464 |
| 4 | -0.0931 | -0.2528 | 0.5127 |
| 5 | -0.6076 | -1.6492 | 0.2613 |
| 6 | -0.1399 | -0.3798 | 0.5869 |
| 7 | -0.2075 | -0.5631 | 1.0512 |
| 8 | -0.0773 | -0.2099 | 0.7462 |
| 9 | -0.3716 | -1.0085 | 0.3378 |
| 10 | 0.2941 | 0.7983 | 0.1123 |
| 11 | 0.1252 | 0.3399 | 0.2614 |
| 12 | 0.1945 | 0.5280 | 0.2293 |
| CONSTRUCT | | | |
| 1 | 0.2461 | 0.6679 | 0.5539 |
| 2 | 0.2771 | 0.7522 | 0.4342 |
| 3 | 0.3452 | 0.9368 | 0.1224 |
| 4 | 0.1879 | 0.5099 | 0.7400 |
| 5 | 0.3150 | 0.8549 | 0.2691 |
| 6 | 0.3288 | 0.8924 | 0.2036 |
| 7 | 0.3097 | 0.8405 | 0.2936 |
| 8 | 0.3264 | 0.8859 | 0.2151 |
| 9 | 0.3179 | 0.8628 | 0.2555 |
| 10 | 0.3287 | 0.8920 | 0.2043 |
| 11 | 0.2966 | 0.8051 | 0.3518 |
| 12 | 0.0371 | 0.1008 | 0.9898 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager F (Sandvik)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | |
| 2 | 0.784 | 38.39 | 3 | 0.591 | 53.79 | 4 | -0.026 | 91.48 | 5 | 0.842 | 32.68 | 6 | 0.652 | 49.3 |
| 7 | 0.298 | 72.69 | 8 | 0.571 | 55.15 | 9 | 0.542 | 57.17 | 10 | 0.449 | 63.31 | 11 | 0.299 | 72.6 |
| 12 | -0.443 | 116.33 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | |
| 3 | 0.562 | 55.79 | 4 | -0.016 | 90.90 | 5 | 0.863 | 30.38 | 6 | 0.685 | 46.75 | 7 | 0.309 | 72.0 |
| 8 | 0.653 | 49.22 | 9 | 0.707 | 45.02 | 10 | 0.707 | 44.99 | 11 | 0.413 | 65.61 | 12 | -0.141 | 98.0 |
| CONSTRUCT 3 | | | | | | | | | | | |
| 4 | 0.605 | 52.80 | 5 | 0.738 | 42.41 | 6 | 0.829 | 34.05 | 7 | 0.907 | 24.88 | 8 | 0.807 | 36.2 |
| 9 | 0.802 | 36.68 | 10 | 0.785 | 38.26 | 11 | 0.723 | 43.67 | 12 | 0.157 | 80.94 | | | |
| CONSTRUCT 4 | | | | | | | | | | | |
| 5 | 0.185 | 79.32 | 6 | 0.296 | 72.78 | 7 | 0.789 | 37.87 | 8 | 0.478 | 61.45 | 9 | 0.278 | 73.8 |
| 10 | 0.582 | 54.40 | 11 | 0.476 | 61.60 | 12 | 0.571 | 55.18 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | |
| 6 | 0.711 | 44.69 | 7 | 0.520 | 58.70 | 8 | 0.805 | 36.38 | 9 | 0.648 | 49.60 | 10 | 0.716 | 44.2 |
| 11 | 0.612 | 52.24 | 12 | -0.291 | 106.91 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | |
| 7 | 0.681 | 47.09 | 8 | 0.735 | 42.66 | 9 | 0.921 | 22.86 | 10 | 0.705 | 45.16 | 11 | 0.673 | 47.6 |
| 12 | 0.059 | 86.64 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | |
| 8 | 0.727 | 43.33 | 9 | 0.683 | 46.91 | 10 | 0.774 | 39.30 | 11 | 0.811 | 35.76 | 12 | 0.378 | 67.81 |
| CONSTRUCT 8 | | | | | | | | | | | |
| 9 | 0.632 | 50.77 | 10 | 0.786 | 38.20 | 11 | 0.717 | 44.18 | 12 | -0.124 | 97.13 | | | |
| CONSTRUCT 9 | | | | | | | | | | | |
| 10 | 0.702 | 45.40 | 11 | 0.680 | 47.13 | 12 | 0.213 | 77.69 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | |
| 11 | 0.731 | 43.06 | 12 | 0.325 | 71.02 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | |
| 12 | 0.148 | 81.47 | | | | | | | | | | | | |

CONSTRUCTS

NTS

| | POSITIVE | NEGATIVE | Present Self | GPC | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1 | HARD WORKING | NOT HARD WORKING | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 3 | 4 | 1 | 4 | 2 |
| 2 | CAPABLE | NOT CAPABLE | 3 | 2 | 2 | 4 | 5 | 3 | 4 | 3 | 4 | 1 | 3 | 2 |
| 3 | APPROACHABLE | UNAPPROACHABLE | 4 | 3 | 3 | 3 | 2 | 3 | 5 | 4 | 3 | 2 | 6 | 3 |
| 4 | AMBITIOUS | UNAMBITIOUS | 2 | 1 | 1 | 4 | 5 | 5 | 3 | 2 | 4 | 2 | 4 | 1 |
| 5 | ACTUALIZATION | NOT ACTUALIZING | 2 | 4 | 3 | 4 | 6 | 3 | 5 | 3 | 4 | 1 | 7 | 4 |
| 6 | REASONABLE | UNREASONABLE | 3 | 3 | 2 | 4 | 4 | 2 | 6 | 2 | 4 | 1 | 3 | 3 |
| 7 | SUCCESSFUL | NOT SUCCESSFUL | 4 | 4 | 3 | 4 | 6 | 2 | 4 | 3 | 3 | 1 | 6 | 4 |
| 8 | LEARNING | STASIS | 4 | 3 | 3 | 5 | 6 | 4 | 6 | 3 | 4 | 1 | 2 | 3 |
| 9 | ABILITY | INABILITY | 3 | 2 | 3 | 4 | 3 | 2 | 4 | 3 | 5 | 1 | 2 | 2 |
| 10 | RESPONSIBLE | LACK OF RESPONSIBILITY | 3 | 3 | 3 | 4 | 6 | 3 | 6 | 3 | 4 | 2 | 5 | 3 |
| 11 | TOLERANCE | INTOLERANCE | 3 | 2 | 2 | 5 | 4 | 4 | 7 | 3 | 4 | 2 | 5 | 2 |
| 12 | | | | | | | | | | | | | | |

1 2 3 4 5 6 7

1 2 3 4 5 6 7

Completed Grid - Manager G (Sandvik) 536

Manager G (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | -0.0992 | -0.2554 | 0.2127 |
| 2 | -0.2061 | -0.5305 | 0.1911 |
| 3 | -0.2519 | -0.6484 | 0.1022 |
| 4 | 0.2050 | 0.5277 | 0.1599 |
| 5 | 0.3681 | 0.9475 | 0.6572 |
| 6 | -0.0354 | -0.0911 | 0.6035 |
| 7 | 0.4768 | 1.2273 | 0.3829 |
| 8 | -0.1165 | -0.3000 | 0.1308 |
| 9 | 0.1972 | 0.5076 | 0.4179 |
| 10 | -0.5710 | -1.4700 | 0.1833 |
| 11 | 0.2392 | 0.6156 | 1.1403 |
| 12 | -0.2061 | -0.5305 | 0.1911 |
| CONSTRUCT | | | |
| 1 | -0.3165 | -0.8148 | 0.3361 |
| 2 | -0.3552 | -0.9143 | 0.1640 |
| 3 | -0.1668 | -0.4293 | 0.8157 |
| 4 | -0.2623 | -0.6754 | 0.5435 |
| 5 | -0.3028 | -0.7795 | 0.3924 |
| 6 | -0.3346 | -0.8614 | 0.2580 |
| 7 | -0.2586 | -0.6657 | 0.5568 |
| 8 | -0.3058 | -0.7873 | 0.3802 |
| 9 | -0.2550 | -0.6564 | 0.5692 |
| 10 | -0.3625 | -0.9331 | 0.1294 |
| 11 | -0.3414 | -0.8790 | 0.2274 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager G (Sandvik)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.704 | 45.23 | 3 | 0.518 | 58.80 | 4 | 0.732 | 42.95 | 5 | 0.627 | 51.16 | 6 | 0.550 | 56.6 |
| 7 | 0.328 | 70.85 | 8 | 0.491 | 60.58 | 9 | 0.528 | 58.13 | 10 | 0.651 | 49.38 | 11 | 0.799 | 36.9 |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.138 | 82.04 | 4 | 0.739 | 42.39 | 5 | 0.589 | 53.93 | 6 | 0.737 | 42.49 | 7 | 0.561 | 55.8 |
| 8 | 0.861 | 30.57 | 9 | 0.723 | 43.70 | 10 | 0.813 | 35.58 | 11 | 0.721 | 43.85 | | | |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.043 | 87.56 | 5 | 0.467 | 62.13 | 6 | 0.332 | 70.59 | 7 | 0.417 | 65.36 | 8 | -0.017 | 91.0 |
| 9 | 0.128 | 82.62 | 10 | 0.379 | 67.74 | 11 | 0.553 | 56.42 | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.459 | 62.63 | 6 | 0.325 | 71.02 | 7 | 0.263 | 74.78 | 8 | 0.490 | 60.65 | 9 | 0.303 | 72.3 |
| 10 | 0.578 | 54.72 | 11 | 0.653 | 49.22 | | | | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.598 | 53.27 | 7 | 0.861 | 30.54 | 8 | 0.382 | 67.54 | 9 | 0.232 | 76.60 | 10 | 0.838 | 33.0 |
| 11 | 0.572 | 55.10 | | | | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.547 | 56.82 | 8 | 0.802 | 36.64 | 9 | 0.694 | 46.01 | 10 | 0.821 | 34.84 | 11 | 0.772 | 39.48 |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.409 | 65.87 | 9 | 0.189 | 79.08 | 10 | 0.738 | 42.48 | 11 | 0.378 | 67.80 | | | |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.672 | 47.80 | 10 | 0.707 | 45.01 | 11 | 0.634 | 50.66 | | | | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.475 | 61.65 | 11 | 0.530 | 57.99 | | | | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.801 | 36.79 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard working | Not hard working | 2 | 1 | 2 | 1 | 6 | 1 | 2 | 2 | 4 | 2 | 1 | 1 |
| 2 | Conscientious | Casual | 1 | 1 | 1 | 1 | 4 | 1 | 2 | 2 | 3 | 2 | 1 | 1 |
| 3 | Thorough | Superficial | 2 | 2 | 3 | 2 | 5 | 2 | 4 | 3 | 2 | 1 | 1 | 1 |
| 4 | Dynamic | Passive | 4 | 3 | 3 | 2 | 7 | 3 | 4 | 2 | 6 | 2 | 5 | 5 |
| 5 | Perceptive | Naive | 2 | 2 | 3 | 4 | 5 | 3 | 6 | 3 | 4 | 1 | 3 | 2 |
| 6 | Articulate | Inarticulate | 3 | 1 | 2 | 5 | 6 | 3 | 3 | 2 | 4 | 1 | 2 | 2 |
| 7 | Idealistic | Pragmatic | 3 | 2 | 4 | 4 | 4 | 3 | 6 | 3 | 5 | 3 | 1 | 2 |
| 8 | Organised | Relaxed | 5 | 4 | 2 | 2 | 3 | 2 | 2 | 2 | 4 | 2 | 5 | 5 |
| 9 | Patient | Impatient | 1 | 2 | 5 | 3 | 5 | 3 | 4 | 4 | 2 | 2 | 1 | 1 |
| 10 | Analytical | Non analytical | 2 | 3 | 4 | 5 | 5 | 3 | 5 | 3 | 3 | 2 | 2 | 3 |
| 11 | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | |

1 2 3 4 5 6 7

Completed Grid - Manager H (Sandvik)

Manager H (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.2207 | -0.5222 | 0.2646 |
| 2 | -0.2603 | -0.6159 | 0.0854 |
| 3 | 0.0901 | 0.2131 | 0.4047 |
| 4 | 0.1049 | 0.2481 | 0.6448 |
| 5 | 0.6494 | 1.5364 | 0.4972 |
| 6 | -0.0768 | -0.1816 | 0.1730 |
| 7 | 0.3817 | 0.9031 | 0.4014 |
| 8 | 0.0202 | 0.0477 | 0.3233 |
| 9 | 0.1636 | 0.4344 | 0.5759 |
| 10 | -0.2479 | -0.5865 | 0.4533 |
| 11 | -0.3303 | -0.7813 | 0.3410 |
| 12 | -0.2939 | -0.6953 | 0.2336 |
| CONSTRUCT | | | |
| 1 | -0.3236 | -0.7655 | 0.4140 |
| 2 | -0.3196 | -0.7561 | 0.4293 |
| 3 | -0.3825 | -0.9049 | 0.1812 |
| 4 | -0.1695 | -0.4010 | 0.8392 |
| 5 | -0.3635 | -0.8601 | 0.2603 |
| 6 | -0.3231 | -0.7643 | 0.4159 |
| 7 | -0.3321 | -0.7856 | 0.3828 |
| 8 | 0.1943 | 0.4597 | 0.7887 |
| 9 | -0.3344 | -0.7910 | 0.3742 |
| 10 | -0.3499 | -0.8254 | 0.3197 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager H (Sandvik)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.941 | 19.86 | 3 | 0.671 | 47.88 | 4 | 0.668 | 48.07 | 5 | 0.466 | 62.21 | 6 | 0.639 | 50.2 |
| 7 | 0.470 | 61.96 | 8 | -0.053 | 93.02 | 9 | 0.458 | 62.76 | 10 | 0.349 | 69.59 | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.625 | 51.32 | 4 | 0.581 | 54.49 | 5 | 0.504 | 59.71 | 6 | 0.564 | 55.66 | 7 | 0.494 | 60.4 |
| 8 | -0.161 | 99.27 | 9 | 0.435 | 64.20 | 10 | 0.346 | 69.73 | | | | | | |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.300 | 72.55 | 5 | 0.754 | 41.04 | 6 | 0.564 | 55.66 | 7 | 0.629 | 51.05 | 8 | -0.423 | 115.0 |
| 9 | 0.846 | 32.26 | 10 | 0.746 | 41.74 | | | | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.408 | 65.95 | 6 | 0.495 | 60.31 | 7 | 0.108 | 83.82 | 8 | 0.552 | 56.50 | 9 | -0.056 | 93.2 |
| 10 | 0.128 | 82.66 | | | | | | | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.693 | 46.16 | 7 | 0.725 | 43.56 | 8 | -0.307 | 107.87 | 9 | 0.589 | 53.92 | 10 | 0.804 | 36.4 |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.507 | 59.57 | 8 | -0.119 | 96.82 | 9 | 0.381 | 67.62 | 10 | 0.653 | 49.24 | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | -0.529 | 121.94 | 9 | 0.581 | 54.50 | 10 | 0.670 | 47.92 | | | | | | |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | -0.756 | 139.07 | 10 | -0.510 | 120.68 | | | | | | | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.742 | 42.07 | | | | | | | | | | | | |

ELEMENTS

| | POSITIVE | NEGATIVE | Present 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard working. | Not H — W. | 2 | 2 | 2 | 2 | 2 | 4 | 5 | 2 | 4 | 1 | 2 | 2 |
| 2 | DIRECT | NON - DIRECT. | 2 | 4 | 2 | 2 | 6 | 6 | 1 | 1 | 6 | 3 | 1 | 2. |
| 3 | ANALYTICAL | NON - A. | 2 | 1 | 2 | 2 | 4 | 1 | 5 | 4 | 5 | 1 | 3 | 2 |
| 4 | FORCEFUL | PERCEFUL / PASSIVE | 2 | 4 | 2 | 2 | 4 | 6 | 1 | 1 | 5 | 2 | 1 | 2 |
| 5 | METHODICAL | IRRATIC | 2 | 1 | 3 | 3 | 3 | 1 | 4 | 3 | 3 | 1 | 2 | 2 |
| 6 | LOGICAL | ILLOGICAL / IRRATIC. | 2 | 1 | 1 | 2 | 4 | 1 | 4 | 4 | 4 | 1 | 2 | 2 |
| 7 | ANTICIPATIVE | REACTIVE | 3 | 1 | 1 | 4 | 7 | 7 | 4 | 3 | 7 | 1 | 4 | 2 |
| 8 | COMMUNICATIVE | INTROVERT | 3 | 2 | 2 | 4 | 6 | 4 | 4 | 2 | 6 | 1 | 4 | 2. |
| 9 | WILLING. | STUBBORN. | 1 | 2 | 4 | 3 | 5 | 2 | 6 | 4 | 2 | 1 | 1 | 2 |
| 10 | GENERALIST | DETAIL. | 3 | 4 | 3 | 5 | 6 | 6 | 1 | 2 | 6 | 4 | 5 | 3 |
| 11 | ACCEPTANCE OF CHANGE | RESISTIVE. | 2 | 2 | 2 | 3 | 6 | 4 | 2 | 4 | 6 | 2 | 2 | 2 |
| 12 | POSITIVE | NEGATIVE. | 2 | 2 | 2 | 3 | 6 | 4 | 2 | 2 | 6 | 1 | 2 | 2 |
| | CONSISTENCY | INCONSISTENCY | 2 | 1 | 1 | 3 | 5 | 2 | 2 | 2 | 4 | 1 | 3 | 2 |

542
Completed Grid - Manager I (Sandvik)

Manager I (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | -0.1682 | -0.4506 | 0.1061 |
| 2 | -0.2670 | -0.7154 | 0.3931 |
| 3 | -0.2443 | -0.6547 | 0.2796 |
| 4 | -0.0025 | -0.0066 | 0.2576 |
| 5 | 0.5311 | 1.4231 | 0.3647 |
| 6 | 0.1594 | 0.4271 | 1.3789 |
| 7 | 0.1481 | 0.3969 | 2.1500 |
| 8 | -0.0020 | -0.0055 | 0.9186 |
| 9 | 0.5438 | 1.4571 | 0.2595 |
| 10 | -0.4026 | -1.0789 | 0.2494 |
| 11 | -0.0786 | -0.2106 | 0.4215 |
| 12 | -0.2173 | -0.5821 | 0.0419 |
| CONSTRUCT | | | |
| 1 | -0.2172 | -0.5819 | 0.6614 |
| 2 | -0.2213 | -0.5930 | 0.6484 |
| 3 | -0.2680 | -0.7179 | 0.4846 |
| 4 | -0.1840 | -0.4930 | 0.7570 |
| 5 | -0.1866 | -0.4999 | 0.7501 |
| 6 | -0.2761 | -0.7399 | 0.4526 |
| 7 | -0.3435 | -0.9204 | 0.1528 |
| 8 | -0.3476 | -0.9315 | 0.1323 |
| 9 | -0.1588 | -0.4255 | 0.8190 |
| 10 | -0.1756 | -0.4705 | 0.7786 |
| 11 | -0.3318 | -0.8890 | 0.2097 |
| 12 | -0.3439 | -0.9215 | 0.1509 |
| 13 | -0.3212 | -0.8607 | 0.2591 |
| 14 | -0.2463 | -0.6601 | 0.5643 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT | 1 | | | | | | | | | | | | | | |
| 2 | 0.234 | 76.49 | 3 | 0.520 | 58.68 | 4 | 0.326 | 70.95 | 5 | 0.395 | 66.72 | 6 | 0.418 | 65.2 | |
| 7 | 0.573 | 55.04 | 8 | 0.530 | 57.96 | 9 | 0.399 | 66.48 | 10 | -0.047 | 92.70 | 11 | 0.274 | 74.1 | |
| 12 | 0.379 | 67.71 | 13 | 0.190 | 79.06 | 14 | 0.743 | 42.01 | | | | | | | |
| CONSTRUCT | 2 | | | | | | | | | | | | | | |
| 3 | -0.030 | 91.74 | 4 | 0.953 | 17.67 | 5 | -0.277 | 106.08 | 6 | 0.035 | 88.00 | 7 | 0.630 | 50.9 | |
| 8 | 0.535 | 57.66 | 9 | -0.082 | 94.72 | 10 | 0.771 | 39.59 | 11 | 0.726 | 43.41 | 12 | 0.803 | 36.6 | |
| 13 | 0.443 | 63.70 | 14 | 0.031 | 88.22 | | | | | | | | | | |
| CONSTRUCT | 3 | | | | | | | | | | | | | | |
| 4 | -0.158 | 99.07 | 5 | 0.822 | 34.72 | 6 | 0.948 | 18.63 | 7 | 0.491 | 60.61 | 8 | 0.614 | 52.1 | |
| 9 | 0.586 | 54.14 | 10 | -0.147 | 98.46 | 11 | 0.517 | 58.84 | 12 | 0.456 | 62.88 | 13 | 0.608 | 52.5 | |
| 14 | 0.773 | 39.41 | | | | | | | | | | | | | |
| CONSTRUCT | 4 | | | | | | | | | | | | | | |
| 5 | -0.369 | 111.63 | 6 | -0.111 | 96.40 | 7 | 0.582 | 54.44 | 8 | 0.450 | 63.28 | 9 | -0.164 | 99.4 | |
| 10 | 0.725 | 43.50 | 11 | 0.603 | 52.89 | 12 | 0.707 | 44.99 | 13 | 0.280 | 73.73 | 14 | 0.025 | 88.5 | |
| CONSTRUCT | 5 | | | | | | | | | | | | | | |
| 6 | 0.756 | 40.89 | 7 | 0.253 | 75.33 | 8 | 0.438 | 64.00 | 9 | 0.779 | 38.80 | 10 | -0.335 | 109.6 | |
| 11 | 0.275 | 74.01 | 12 | 0.262 | 74.79 | 13 | 0.425 | 64.85 | 14 | 0.587 | 54.03 | | | | |
| ONSTRUCT | 6 | | | | | | | | | | | | | | |
| 7 | 0.524 | 58.41 | 8 | 0.591 | 53.79 | 9 | 0.589 | 53.90 | 10 | -0.127 | 97.28 | 11 | 0.610 | 52.4 | |
| 12 | 0.496 | 60.28 | 13 | 0.661 | 48.59 | 14 | 0.777 | 39.00 | | | | | | | |
| ONSTRUCT | 7 | | | | | | | | | | | | | | |
| 8 | 0.910 | 24.45 | 9 | 0.190 | 79.05 | 10 | 0.620 | 51.70 | 11 | 0.814 | 35.54 | 12 | 0.871 | 29.4 | |
| 13 | 0.810 | 35.89 | 14 | 0.581 | 54.45 | | | | | | | | | | |
| ONSTRUCT | 8 | | | | | | | | | | | | | | |
| 9 | 0.272 | 74.24 | 10 | 0.580 | 54.57 | 11 | 0.744 | 41.93 | 12 | 0.880 | 28.34 | 13 | 0.900 | 25.88 | |
| 14 | 0.512 | 59.21 | | | | | | | | | | | | | |
| ONSTRUCT | 9 | | | | | | | | | | | | | | |
| 10 | -0.365 | 111.42 | 11 | 0.254 | 75.28 | 12 | 0.217 | 77.47 | 13 | 0.223 | 77.13 | 14 | 0.617 | 51.33 | |
| UNSTRUCT | 10 | | | | | | | | | | | | | | |
| 11 | 0.598 | 53.26 | 12 | 0.704 | 45.26 | 13 | 0.581 | 54.45 | 14 | -0.225 | 103.01 | | | | |
| ONSTRUCT | 11 | | | | | | | | | | | | | | |
| 12 | 0.926 | 22.18 | 13 | 0.787 | 38.10 | 14 | 0.429 | 64.58 | | | | | | | |

| | POSITIVE | NEGATIVE | Present Self 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard Working | Not hard working | 1 | 1 | 1 | 2 | 3 | 5 | 2 | 2 | 6 | 1 | 1 | 1 |
| 2 | Pragmatic | Not Pragmatic | 2 | 1 | 2 | 3 | 6 | 5 | 7 | 5 | 7 | 1 | 3 | 2 |
| 3 | Professionalism | Unprofesional | 2 | 2 | 2 | 3 | 5 | 5 | 7 | 5 | 6 | 1 | 3 | 2 |
| 4 | Reflective | Thoughtless | 2 | 2 | 1 | 4 | 6 | 5 | 6 | 5 | 6 | 1 | 3 | 2 |
| 5 | Logical | Illogical | 2 | 3 | 2 | 4 | 6 | 5 | 7 | 5 | 7 | 1 | 3 | 2 |
| 6 | Good motivator | Poor motivator | 2 | 1 | 1 | 4 | 6 | 6 | 2 | 4 | 7 | 1 | 4 | 3 |
| 7 | Ambitious | No ambition | 3 | 2 | 2 | 1 | 3 | 7 | 1 | 2 | 7 | 2 | 3 | 2 |
| 8 | An achiever | Poor achiever | 1 | 1 | 1 | 3 | 5 | 5 | 3 | 3 | 6 | 1 | 2 | 1 |
| 9 | Self Control | Poor Self Control | 2 | 2 | 1 | 3 | 6 | 2 | 3 | 2 | 2 | 1 | 3 | 2 |
| 10 | Far sighted | short sighted | 2 | 2 | 1 | 4 | 7 | 5 | 7 | 5 | 7 | 1 | 3 | 2 |
| 11 | Good men managem | Poor m.m | 2 | 1 | 1 | 6 | 7 | 5 | 2 | 3 | 7 | 2 | 3 | 2 |
| 12 | Tolerance | Poor Tolerance | 2 | 2 | 2 | 4 | 6 | 5 | 4 | 4 | 4 | 2 | 5 | 3 |

Completed Grid - Manager J (Sandvik)

Manager J (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | 0.2555 | 0.7622 | 0.0497 |
| 2 | 0.2910 | 0.8681 | 0.0626 |
| 3 | 0.3376 | 1.0072 | 0.0551 |
| 4 | -0.0354 | -0.1055 | 0.2504 |
| 5 | -0.4146 | -1.2367 | 0.5147 |
| 6 | -0.3062 | -0.9135 | 0.4021 |
| 7 | -0.1958 | -0.5840 | 0.8439 |
| 8 | -0.0970 | -0.2893 | 0.1427 |
| 9 | -0.4792 | -1.4294 | 0.0617 |
| 10 | 0.3700 | 1.1037 | 0.0657 |
| 11 | 0.0437 | 0.1305 | 0.2162 |
| 12 | 0.2302 | 0.6866 | 0.0367 |
| CONSTRUCT | | | |
| 1 | 0.2846 | 0.8491 | 0.2791 |
| 2 | 0.3126 | 0.9326 | 0.1303 |
| 3 | 0.2993 | 0.8927 | 0.2030 |
| 4 | 0.3225 | 0.9620 | 0.0745 |
| 5 | 0.3107 | 0.9269 | 0.1409 |
| 6 | 0.2984 | 0.8900 | 0.2079 |
| 7 | 0.1906 | 0.5687 | 0.6766 |
| 8 | 0.3262 | 0.9730 | 0.0534 |
| 9 | 0.1968 | 0.5871 | 0.6554 |
| 10 | 0.3208 | 0.9569 | 0.0843 |
| 11 | 0.2810 | 0.8381 | 0.2976 |
| 12 | 0.2807 | 0.8375 | 0.2986 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager J (Sandvik)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.737 | 42.52 | 3 | 0.690 | 46.38 | 4 | 0.728 | 43.29 | 5 | 0.731 | 43.05 | 6 | 0.843 | 32.5 |
| 7 | 0.853 | 31.47 | 8 | 0.929 | 21.67 | 9 | 0.170 | 80.20 | 10 | 0.721 | 43.88 | 11 | 0.771 | 39.5 |
| 12 | 0.538 | 57.49 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.980 | 11.57 | 4 | 0.957 | 16.95 | 5 | 0.961 | 16.06 | 6 | 0.709 | 44.84 | 7 | 0.417 | 65.3 |
| 8 | 0.864 | 30.27 | 9 | 0.487 | 60.84 | 10 | 0.969 | 14.34 | 11 | 0.633 | 50.75 | 12 | 0.720 | 43.9 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.953 | 17.72 | 5 | 0.972 | 13.61 | 6 | 0.628 | 51.12 | 7 | 0.364 | 68.68 | 8 | 0.809 | 36.0 |
| 9 | 0.434 | 64.26 | 10 | 0.955 | 17.33 | 11 | 0.529 | 58.05 | 12 | 0.681 | 47.09 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.971 | 13.77 | 6 | 0.766 | 40.03 | 7 | 0.378 | 67.81 | 8 | 0.891 | 27.04 | 9 | 0.600 | 53.1 |
| 10 | 0.991 | 7.53 | 11 | 0.723 | 43.73 | 12 | 0.798 | 37.04 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.677 | 47.42 | 7 | 0.369 | 68.38 | 8 | 0.860 | 30.69 | 9 | 0.517 | 58.84 | 10 | 0.980 | 11.57 |
| 11 | 0.639 | 50.31 | 12 | 0.689 | 46.45 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.713 | 44.53 | 8 | 0.913 | 24.08 | 9 | 0.490 | 60.64 | 10 | 0.737 | 42.50 | 11 | 0.905 | 25.15 |
| 12 | 0.815 | 35.37 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.682 | 47.02 | 9 | -0.054 | 93.11 | 10 | 0.364 | 68.67 | 11 | 0.532 | 57.87 | 12 | 0.345 | 69.80 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.481 | 61.25 | 10 | 0.884 | 27.91 | 11 | 0.884 | 27.87 | 12 | 0.770 | 39.62 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.620 | 51.68 | 11 | 0.587 | 54.06 | 12 | 0.758 | 40.69 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.713 | 44.49 | 12 | 0.769 | 39.74 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.740 | 42.26 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | Pres. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard Working | Not hard work. | 2 | 1 | 1 | 3 | 3 | 3 | 3 | 2 | 5 | 2 | 1 | 2 |
| 2 | Ambition | Not Ambition | 4 | 1 | 1 | 5 | 6 | 4 | 6 | 3 | 4 | 4 | 4 | 2 |
| 3 | Meeting Objective. | Not meeting Objectives | 1 | 1 | 1 | 1 | 6 | 3 | 3 | 2 | 5 | 1 | 1 | 1 |
| 4 | Receptive | Not receptive. | 1 | 2 | 3 | 4 | 4 | 2 | 4 | 2 | 4 | 1 | 1 | 1 |
| 5 | Problem Solver | Lack of Problem Solving | 1 | 1 | 3 | 3 | 6 | 4 | 5 | 4 | 4 | 1 | 1 | 1 |
| 6 | Analytical | Not Analytical. | 1 | 1 | 1 | 2 | 7 | 3 | 5 | 2 | 4 | 1 | 1 | 1 |
| 7 | Co. Loyalty | No Co. Loyalty | 4 | 4 | 1 | 1 | 4 | 4 | 1 | 4 | 1 | 4 | 4 | 4 |
| 8 | Courage → new ideas | No Courage. | 2 | 1 | 3 | 2 | 5 | 2 | 5 | 2 | 4 | 1 | 3 | 1 |
| 9 | Managing people | Not Managing People | 2 | 2 | 4 | 3 | 7 | 2 | 3 | 2 | 3 | 1 | 2 | 2 |
| 10 | Commitment - own ideas | No Commitment - own ideas | 3 | 2 | 1 | 2 | 4 | 4 | 4 | 2 | 5 | 2 | 3 | 2 |
| 11 | Intellectual ability | No Intellectual Ability | 1 | 1 | 1 | 4 | 7 | 3 | 6 | 3 | 3 | 1 | 1 | 1 |
| 12 | Sociable | Not Sociable | 3 | 2 | 2 | 3 | 6 | 2 | 3 | 2 | 3 | 2 | 3 | 3 |

Completed Grid - Manager K (Sandvik)

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## Manager K (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | 0.1821 | 0.5069 | 0.1806 |
| 2 | 0.3066 | 0.8531 | 0.1406 |
| 3 | 0.1504 | 0.4186 | 0.8400 |
| 4 | -0.0682 | -0.1898 | 0.4966 |
| 5 | -0.6331 | -1.7618 | 0.6345 |
| 6 | -0.0362 | -0.1008 | 0.3176 |
| 7 | -0.3751 | -1.0439 | 0.2994 |
| 8 | 0.0924 | 0.2571 | 0.1335 |
| 9 | -0.3402 | -0.9467 | 0.6203 |
| 10 | 0.2744 | 0.7637 | 0.1354 |
| 11 | 0.1828 | 0.5087 | 0.2851 |
| 12 | 0.2641 | 0.7349 | 0.1215 |
| CONSTRUCT | | | |
| 1 | 0.2602 | 0.7241 | 0.4757 |
| 2 | 0.2645 | 0.7361 | 0.4582 |
| 3 | 0.3255 | 0.9059 | 0.1793 |
| 4 | 0.2963 | 0.8246 | 0.3201 |
| 5 | 0.3221 | 0.8964 | 0.1964 |
| 6 | 0.3493 | 0.9720 | 0.0552 |
| 7 | -0.1393 | -0.3877 | 0.8497 |
| 8 | 0.3165 | 0.8809 | 0.2240 |
| 9 | 0.2751 | 0.7656 | 0.4138 |
| 10 | 0.2628 | 0.7314 | 0.4651 |
| 11 | 0.3321 | 0.9241 | 0.1460 |
| 12 | 0.2612 | 0.7268 | 0.4718 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager K (Sandvik)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | |
| 2 | 0.582 | 54.44 | 3 | 0.735 | 42.69 | 4 | 0.620 | 51.66 | 5 | 0.598 | 53.31 |
| 6 | 0.651 | 49.31 | 7 | -0.425 | 115.24 | 8 | 0.473 | 61.79 | 9 | 0.255 | 75.24 |
| 10 | 0.770 | 39.68 | 11 | 0.574 | 54.91 | 12 | 0.330 | 70.75 | | | |
| CONSTRUCT 2 | | | | | | | | | | | |
| 3 | 0.550 | 56.65 | 4 | 0.443 | 63.71 | 5 | 0.554 | 56.33 | 6 | 0.707 | 44.97 |
| 7 | -0.147 | 98.47 | 8 | 0.616 | 51.97 | 9 | 0.352 | 69.36 | 10 | 0.654 | 49.16 |
| 11 | 0.768 | 39.83 | 12 | 0.602 | 52.91 | | | | | | |
| CONSTRUCT 3 | | | | | | | | | | | |
| 4 | 0.641 | 50.16 | 5 | 0.818 | 35.15 | 6 | 0.925 | 22.31 | 7 | -0.141 | 98.09 |
| 8 | 0.750 | 41.49 | 9 | 0.690 | 46.40 | 10 | 0.798 | 37.03 | 11 | 0.758 | 40.75 |
| 12 | 0.668 | 48.07 | | | | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | |
| 5 | 0.802 | 36.67 | 6 | 0.734 | 42.77 | 7 | -0.751 | 138.67 | 8 | 0.724 | 43.58 |
| 9 | 0.684 | 46.83 | 10 | 0.397 | 66.61 | 11 | 0.780 | 38.74 | 12 | 0.425 | 64.85 |
| CONSTRUCT 5 | | | | | | | | | | | |
| 6 | 0.890 | 27.09 | 7 | -0.376 | 112.08 | 8 | 0.775 | 39.16 | 9 | 0.703 | 45.36 |
| 10 | 0.536 | 57.63 | 11 | 0.895 | 26.35 | 12 | 0.483 | 61.11 | | | |
| CONSTRUCT 6 | | | | | | | | | | | |
| 7 | -0.218 | 102.60 | 8 | 0.832 | 33.72 | 9 | 0.752 | 41.21 | 10 | 0.726 | 43.42 |
| 11 | 0.934 | 21.01 | 12 | 0.736 | 42.58 | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | |
| 8 | -0.469 | 117.97 | 9 | -0.239 | 103.83 | 10 | -0.103 | 95.92 | 11 | -0.293 | 107.01 |
| 12 | 0.055 | 86.83 | | | | | | | | | |
| CONSTRUCT 8 | | | | | | | | | | | |
| 9 | 0.724 | 43.64 | 10 | 0.642 | 50.05 | 11 | 0.759 | 40.66 | 12 | 0.631 | 50.88 |
| CONSTRUCT 9 | | | | | | | | | | | |
| 10 | 0.271 | 74.26 | 11 | 0.699 | 45.62 | 12 | 0.818 | 35.08 | | | |
| CONSTRUCT 10 | | | | | | | | | | | |
| 11 | 0.555 | 56.27 | 12 | 0.456 | 62.90 | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | |
| 12 | 0.672 | 47.77 | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Present | | | | | | | | | | | |
| 1 | Hard Working | Not hard working | 2 | 2 | 3 | 2 | 4 | 2 | 3 | 3 | 4 | 1 | 2 | 3 |
| 2 | Decisiveness | Indecisive | 2 | 6 | 2 | 3 | 6 | 2 | 5 | 2 | 6 | 1 | 3 | 3 |
| 3 | Very Capable | Needs Training | 1 | 4 | 1 | 1 | 4 | 1 | 3 | 1 | 4 | 1 | 1 | 4 |
| 4 | Positive | Insecure | 1 | 5 | 1 | 1 | 5 | 1 | 4 | 1 | 5 | 1 | 1 | 2 |
| 5 | Successful | Immature | 2 | 3 | 1 | 2 | 5 | 2 | 3 | 1 | 6 | 1 | 1 | 2 |
| 6 | Powerful | Slow to act | 1 | 5 | 1 | 3 | 6 | 2 | 5 | 1 | 5 | 1 | 1 | 1 |
| 7 | Leadership | Negative | 2 | 4 | 2 | 4 | 6 | 2 | 6 | 1 | 6 | 1 | 1 | 2 |
| 8 | Pleasant personality | Not | 2 | 2 | 2 | 1 | 2 | 2 | 4 | 2 | 4 | 1 | 2 | 2 |
| 9 | Knowledgable | Underhand | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 2 | 1 | 1 | 1 |
| 10 | Well liked | Forgetful | 3 | 2 | 3 | 1 | 2 | 1 | 3 | 2 | 4 | 1 | 2 | 3 |
| 11 | Conciseness | Unsuccessful | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 1 |
| | Forceful | Conceited | 1 | 4 | 2 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 1 | 2 |

Completed Grid - Manager L (Sandvik)

Manager L (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | -0.1846 | -0.5423 | 0.1579 |
| 2 | 0.1845 | 0.5420 | 0.6161 |
| 3 | -0.1516 | -0.4452 | 0.2369 |
| 4 | -0.1712 | -0.5028 | 0.3178 |
| 5 | 0.4649 | 1.3658 | 0.4370 |
| 6 | -0.2093 | -0.6148 | 0.1193 |
| 7 | 0.3086 | 0.9065 | 0.3614 |
| 8 | -0.2109 | -0.6196 | 0.1345 |
| 9 | 0.5624 | 1.6522 | 0.3848 |
| 10 | -0.3357 | -0.9860 | 0.1959 |
| 11 | -0.2230 | -0.6551 | 0.0583 |
| 12 | -0.0343 | -0.1009 | 0.3509 |
| CONSTRUCT | | | |
| 1 | -0.2625 | -0.7710 | 0.4056 |
| 2 | -0.3183 | -0.9349 | 0.1259 |
| 3 | -0.2904 | -0.8530 | 0.2723 |
| 4 | -0.3226 | -0.9478 | 0.1017 |
| 5 | -0.3203 | -0.9406 | 0.1150 |
| 6 | -0.3054 | -0.8971 | 0.1953 |
| 7 | -0.3119 | -0.9162 | 0.1606 |
| 8 | -0.2462 | -0.7232 | 0.4768 |
| 9 | -0.2838 | -0.8337 | 0.3050 |
| 10 | -0.1892 | -0.5557 | 0.6912 |
| 11 | -0.2625 | -0.7712 | 0.4053 |
| 12 | -0.3200 | -0.9400 | 0.1162 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager L (Sandvik)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.611 | 52.35 | 3 | 0.608 | 52.55 | 4 | 0.590 | 53.85 | 5 | 0.690 | 46.35 | 6 | 0.518 | 58.8 |
| 7 | 0.620 | 51.65 | 8 | 0.628 | 51.07 | 9 | 0.723 | 43.66 | 10 | 0.654 | 49.17 | 11 | 0.690 | 46.3 |
| 12 | 0.636 | 50.54 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.851 | 31.63 | 4 | 0.960 | 16.18 | 5 | 0.854 | 31.30 | 6 | 0.928 | 21.94 | 7 | 0.874 | 29.0 |
| 8 | 0.591 | 53.76 | 9 | 0.711 | 44.68 | 10 | 0.398 | 66.52 | 11 | 0.619 | 51.78 | 12 | 0.925 | 22.3 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.894 | 26.63 | 5 | 0.771 | 39.57 | 6 | 0.728 | 43.29 | 7 | 0.700 | 45.55 | 8 | 0.507 | 59.5 |
| 9 | 0.603 | 52.94 | 10 | 0.482 | 61.21 | 11 | 0.548 | 56.74 | 12 | 0.868 | 29.72 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.870 | 29.53 | 6 | 0.923 | 22.70 | 7 | 0.854 | 31.33 | 8 | 0.602 | 52.99 | 9 | 0.739 | 42.3 |
| 10 | 0.413 | 65.63 | 11 | 0.641 | 50.14 | 12 | 0.970 | 14.13 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.853 | 31.43 | 7 | 0.876 | 28.79 | 8 | 0.608 | 52.55 | 9 | 0.803 | 36.54 | 10 | 0.450 | 63.2 |
| 11 | 0.880 | 28.42 | 12 | 0.806 | 36.32 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.945 | 19.07 | 8 | 0.513 | 59.11 | 9 | 0.785 | 38.28 | 10 | 0.187 | 79.23 | 11 | 0.581 | 54.5 |
| 12 | 0.889 | 27.21 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.616 | 51.98 | 9 | 0.806 | 36.31 | 10 | 0.361 | 68.83 | 11 | 0.633 | 50.71 | 12 | 0.860 | 30.6 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.496 | 60.25 | 10 | 0.753 | 41.11 | 11 | 0.546 | 56.90 | 12 | 0.668 | 48.09 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.269 | 73.19 | 11 | 0.674 | 47.65 | 12 | 0.729 | 43.17 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.492 | 60.50 | 12 | 0.503 | 59.78 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.573 | 55.03 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard Working | Not Hard Working. | 2 | 2 | 3 | 2 | 5 | 2 | 6 | 3 | 5 | 1 | 3 | 3 |
| 2 | Decisive. | Meddling. | 1 | 2 | 3 | 1 | 6 | 3 | 2 | 2 | 6 | 1 | 1 | 2 |
| 3 | Awareness. | Slow. | 3 | 2 | 3 | 2 | 7 | 3 | 3 | 2 | 2 | 1 | 2 | 2 |
| 4 | Sociable. | Back Stabber. | 3 | 6 | 4 | 2 | 2 | 1 | 7 | 4 | 4 | 1 | 4 | 3 |
| 5 | Doer. | Talker. | 2 | 3 | 3 | 3 | 2 | 1 | 5 | 1 | 7 | 1 | 2 | 2 |
| 6 | Trustful | Untrustful. | 3 | 4 | 4 | 3 | 3 | 2 | 7 | 4 | 7 | 1 | 3 | 3 |
| 7 | Dynamic | Staid. | 3 | 5 | 5 | 2 | 6 | 4 | 4 | 2 | 4 | 1 | 2 | 2 |
| 8 | Ambition/Promotion. | Not so. | 4 | 2 | 4 | 3 | 4 | 2 | 4 | 2 | 2 | 2 | 2 | 2 |
| 9 | Co operative | Not so. | 2 | 4 | 4 | 2 | 3 | 2 | 4 | 3 | 5 | 1 | 2 | 2 |
| 10 | Soft Approach | Hard Approach | 2 | 7 | 5 | 2 | 2 | 2 | 7 | 6 | 5 | 3 | 2 | 3 |
| 11 | Capable | Less Capable | 3 | 3 | 4 | 3 | 7 | 3 | 3 | 2 | 5 | 1 | 4 | 1 |
| 12 | Positive Nature | Corrective Nature | 2 | 3 | 3 | 3 | 7 | 3 | 5 | 3 | 4 | 1 | 1 | 2 |

1 2 3 4 5 6 7

Completed Grid - Manager M (Sandvik)

Manager M (Sandvik)

COMPONENT 1

| ELEMENT: | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | 0.1455 | 0.3726 | 0.3219 |
| 2 | -0.0938 | -0.2338 | 0.6726 |
| 3 | -0.1769 | -0.4411 | 0.2251 |
| 4 | 0.1875 | 0.4674 | 0.1743 |
| 5 | -0.4119 | -1.0270 | 1.7395 |
| 6 | 0.1787 | 0.4455 | 0.3705 |
| 7 | -0.4157 | -1.0363 | 0.7009 |
| 8 | 0.0905 | 0.2255 | 0.3451 |
| 9 | -0.4382 | -1.0676 | 0.7765 |
| 10 | 0.4961 | 1.2369 | 0.0611 |
| 11 | 0.2008 | 0.5007 | 0.2652 |
| 12 | 0.2235 | 0.5572 | 0.1317 |
| CONSTRUCT | | | |
| 1 | 0.3489 | 0.3698 | 0.2435 |
| 2 | 0.2978 | 0.7423 | 0.4487 |
| 3 | 0.2278 | 0.5679 | 0.6775 |
| 4 | 0.2233 | 0.5568 | 0.6900 |
| 5 | 0.2886 | 0.7194 | 0.4322 |
| 6 | 0.3220 | 0.8028 | 0.3555 |
| 7 | 0.3213 | 0.8011 | 0.3582 |
| 8 | 0.1908 | 0.4756 | 0.7738 |
| 9 | 0.3522 | 0.8780 | 0.2292 |
| 10 | 0.1948 | 0.4856 | 0.7642 |
| 11 | 0.2924 | 0.7291 | 0.4684 |
| 12 | 0.3372 | 0.8407 | 0.2933 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager M (Sandvik)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | |
| 2 | 0.626 | 51.21 | 3 | 0.497 | 60.17 | 4 | 0.514 | 59.08 | 5 | 0.658 | 48.87 | 6 | 0.794 | 37.4 |
| 7 | 0.451 | 60.57 | 8 | 0.391 | 66.98 | 9 | 0.666 | 48.21 | 10 | 0.361 | 68.86 | 11 | 0.574 | 54.9 |
| 12 | 0.754 | 41.10 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.613 | 52.22 | 4 | -0.042 | 92.39 | 5 | 0.459 | 62.66 | 6 | 0.402 | 66.30 | 7 | 0.687 | 46.5 |
| 8 | 0.132 | 82.42 | 9 | 0.598 | 53.28 | 10 | 0.075 | 85.70 | 11 | 0.753 | 41.15 | 12 | 0.745 | 41.8 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | -0.110 | 96.34 | 5 | -0.046 | 92.61 | 6 | 0.023 | 88.69 | 7 | 0.715 | 44.37 | 8 | 0.629 | 51.0 |
| 9 | 0.170 | 80.24 | 10 | -0.228 | 103.20 | 11 | 0.769 | 39.76 | 12 | 0.809 | 36.03 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.550 | 56.65 | 6 | 0.773 | 39.34 | 7 | 0.297 | 72.69 | 8 | 0.167 | 80.38 | 9 | 0.700 | 45.5 |
| 10 | 0.824 | 34.51 | 11 | 0.052 | 87.00 | 12 | 0.195 | 78.76 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.885 | 27.80 | 7 | 0.340 | 70.13 | 8 | 0.159 | 80.84 | 9 | 0.787 | 38.12 | 10 | 0.461 | 62.5 |
| 11 | 0.371 | 68.25 | 12 | 0.377 | 67.87 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.373 | 68.11 | 8 | 0.212 | 77.75 | 9 | 0.872 | 29.25 | 10 | 0.687 | 46.61 | 11 | 0.309 | 72.0 |
| 12 | 0.468 | 62.07 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.484 | 61.06 | 9 | 0.669 | 48.04 | 10 | 0.277 | 73.92 | 11 | 0.739 | 42.32 | 12 | 0.755 | 41.0 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.157 | 78.52 | 10 | -0.023 | 91.32 | 11 | 0.440 | 63.89 | 12 | 0.520 | 58.69 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.735 | 42.57 | 11 | 0.482 | 61.15 | 12 | 0.553 | 56.44 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | -0.121 | 96.95 | 12 | 0.217 | 77.45 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.711 | 44.67 | | | | | | | | | | | | |

Completed Grid - Manager N (Sandvik)

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 Ideal | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING | 2 | 1 | 1 | 2 | 6 | 4 | 3 | 2 | 4 | 2 | 3 | 4 |
| 2 | SHARP | BLUNT | 3 | 3 | 2 | 4 | 6 | 3 | 2 | 2 | 5 | 2 | 4 | 3 |
| 3 | TRUST | UNTRUST WORTHY | 2 | 2 | 2 | 2 | 5 | 3 | 6 | 2 | 4 | 1 | 3 | 3 |
| 4 | HONESTY | FALSE | 2 | 3 | 2 | 2 | 7 | 3 | 6 | 2 | 3 | 1 | 3 | 3 |
| 5 | CHARISMA | DULL | 2 | 2 | 3 | 3 | 4 | 2 | 3 | 2 | 6 | 1 | 2 | 4 |
| 6 | DEPENDABILITY | UNRELIABLE | 1 | 2 | 2 | 1 | 7 | 2 | 2 | 1 | 2 | 1 | 1 | 2 |
| 7 | FAIRNESS | UNFAIR | 1 | 2 | 2 | 2 | 5 | 2 | 6 | 1 | 3 | 1 | 2 | 2 |
| 8 | UNDERSTANDING | MISUNDERSTANDING | 2 | 3 | 3 | 3 | 5 | 3 | 4 | 2 | 4 | 1 | 3 | 3 |
| 9 | ADAPTABLE | INFLEXIBLE | 2 | 2 | 2 | 2 | 6 | 2 | 3 | 1 | 4 | 1 | 3 | 3 |
| 10 | CAUTIOUS | TO RASH | 4 | 3 | 3 | 4 | 2 | 3 | 3 | 1 | 2 | 3 | 5 | 4 |
| 11 | ACCEPTABLE TO PEOPLE | UNACCEPTABLE | 2 | 2 | 2 | 2 | 4 | 2 | 3 | 1 | 4 | 1 | 3 | 4 |
| | LISTENS | DOESN'T LISTEN | 3 | 2 | 2 | 2 | 6 | 3 | 3 | 2 | 4 | 2 | 3 | 4 |

1 2 3 4 5 6 7

Manager N (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | -0.2031 | -0.5897 | 0.0721 |
| 2 | -0.1384 | -0.4018 | 0.1501 |
| 3 | -0.1578 | -0.4581 | 0.2155 |
| 4 | -0.1378 | -0.3999 | 0.1697 |
| 5 | 0.6917 | 2.0081 | 0.2894 |
| 6 | -0.0305 | -0.0886 | 0.1451 |
| 7 | 0.2825 | 0.8202 | 0.8604 |
| 8 | -0.3018 | -0.8752 | 0.0613 |
| 9 | 0.3134 | 0.9098 | 0.5644 |
| 10 | -0.3706 | -1.0759 | 0.2367 |
| 11 | -0.0402 | -0.1166 | 0.4435 |
| 12 | 0.0922 | 0.2677 | 0.3334 |
| CONSTRUCT | | | |
| 1 | -0.2871 | -0.8336 | 0.3051 |
| 2 | -0.2476 | -0.7189 | 0.4832 |
| 3 | -0.3039 | -0.8824 | 0.2214 |
| 4 | -0.3095 | -0.8986 | 0.1928 |
| 5 | -0.2469 | -0.7168 | 0.4862 |
| 6 | -0.2837 | -0.8237 | 0.3215 |
| 7 | -0.2917 | -0.8469 | 0.2828 |
| 8 | -0.3207 | -0.9310 | 0.1333 |
| 9 | -0.3314 | -0.9621 | 0.0744 |
| 10 | 0.1914 | 0.5556 | 0.6914 |
| 11 | -0.2970 | -0.8623 | 0.2565 |
| 12 | -0.3225 | -0.9362 | 0.1236 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager N (Sandvik)

CONSTRUCT 1

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.693 | 45.76 | 3 | 0.680 | 47.17 | 4 | 0.687 | 46.63 | 5 | 0.541 | 57.26 |
| 7 | 0.543 | 56.74 | 8 | 0.653 | 49.25 | 9 | 0.817 | 35.26 | 10 | -0.372 | 111.86 |
| 12 | 0.850 | 31.81 | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 0.713 | 44. | | | | | | | | | |
| 11 | 0.741 | 42. | | | | | | | | | |

CONSTRUCT 2

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 0.403 | 66.21 | 4 | 0.479 | 61.35 | 5 | 0.607 | 52.63 | 6 | 0.641 | 50.13 |
| 8 | 0.676 | 47.49 | 9 | 0.832 | 33.72 | 10 | -0.318 | 108.55 | 11 | 0.682 | 47.02 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.350 | 69. | | | | | | | | | |
| 12 | 0.554 | 56. | | | | | | | | | |

CONSTRUCT 3

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.913 | 24.04 | 5 | 0.557 | 56.12 | 6 | 0.572 | 55.10 | 7 | 0.943 | 19.47 |
| 9 | 0.757 | 40.76 | 10 | -0.402 | 113.71 | 11 | 0.724 | 43.60 | 12 | 0.903 | 25.47 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 0.844 | 32. | | | | | | | | | |

CONSTRUCT 4

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 0.400 | 65.45 | 6 | 0.796 | 37.29 | 7 | 0.927 | 22.08 | 8 | 0.855 | 31.20 |
| 10 | -0.434 | 115.73 | 11 | 0.653 | 49.26 | 12 | 0.897 | 26.18 | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 0.816 | 35.2 | | | | | | | | | |

CONSTRUCT 5

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 0.412 | 65.69 | 7 | 0.471 | 61.91 | 8 | 0.716 | 44.27 | 9 | 0.698 | 45.69 |
| 11 | 0.813 | 35.61 | 12 | 0.576 | 54.81 | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | -0.485 | 119.0 | | | | | | | | | |

CONSTRUCT 6

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.623 | 50.70 | 8 | 0.738 | 42.45 | 9 | 0.838 | 33.04 | 10 | -0.620 | 128.33 |
| 12 | 0.741 | 42.18 | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 0.557 | 56.1 | | | | | | | | | |

CONSTRUCT 7

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 0.835 | 33.42 | 9 | 0.720 | 43.95 | 10 | -0.502 | 120.13 | 11 | 0.615 | 52.06 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 0.833 | 33.5 | | | | | | | | | |

CONSTRUCT 8

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 0.884 | 27.91 | 10 | -0.490 | 119.36 | 11 | 0.801 | 36.81 | 12 | 0.781 | 38.64 |

CONSTRUCT 9

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | -0.470 | 118.06 | 11 | 0.879 | 28.44 | 12 | 0.879 | 28.45 | | | |



CONSTRUCT 10

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | -0.283 | 106.42 | 12 | -0.434 | 115.72 | | | | | | |

CONSTRUCT 11

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 0.813 | 35.61 | | | | | | | | | |

Completed Grid – Manager O (Sandvik)

560

| POSITIVE | NEGATIVE | Present Sit. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 HARD WORKING | NOT HARD WORKING | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | 1 | 2 | 3 |
| 2 ORGANISED | NOT ORGANISED | 3 | 5 | 4 | 2 | 6 | 2 | 4 | 2 | 3 | 1 | 2 | 3 |
| 3 DECISIVE | NOT DECISIVE | 2 | 4 | 4 | 2 | 6 | 3 | 7 | 2 | 5 | 1 | 3 | 2 |
| 4 ADAPTABLE | NOT ABLE TO ADAPT | 2 | 2 | 2 | 4 | 7 | 2 | 6 | 2 | 5 | 1 | 2 | 2 |
| 5 THOROUGHNESS. | NOT THOROUGH. | 3 | 4 | 4 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 |
| 6 PERSONNEL MAN | INABILITY TO MAN PEOPLE | 2 | 4 | 4 | 6 | 4 | 3 | 5 | 3 | 4 | 1 | 2 | 2 |
| 7 HUMANITY | INHUMANITY. | 2 | 3 | 4 | 5 | 4 | 3 | 4 | 6 | 4 | 1 | 2 | 2 |
| 8 ACHIEVEMENT | LACK OF ACHIEVEMENT | 3 | 3 | 3 | 4 | 6 | 2 | 5 | 2 | 5 | 1 | 3 | 3 |
| 9 REALISM | IDEALISTIC. | 2 | 3 | 3 | 2 | 2 | 3 | 5 | 3 | 4 | 2 | 2 | 3 |
| 10 POSITIVE APPROACH | NEGATIVE APPROACH | 2 | 2 | 2 | 2 | 6 | 2 | 6 | 2 | 6 | 2 | 3 | 3 |
| 11 AMBITION | LACK OF AMBITION | 2 | 1 | 2 | 4 | 4 | 1 | 6 | 1 | 4 | 2 | 3 | 2 |
| 12 | | | | | | | | | | | | | |

1 2 3 4 5 6 7

Manager O (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | 0.2238 | 0.5370 | 0.1072 |
| 2 | 0.0475 | 0.1140 | 0.6189 |
| 3 | -0.0051 | -0.0122 | 0.4854 |
| 4 | -0.0879 | -0.2110 | 0.9056 |
| 5 | -0.4310 | -1.0340 | 0.6091 |
| 6 | 0.2055 | 0.4931 | 0.0987 |
| 7 | -0.5262 | -1.2626 | 0.5428 |
| 8 | 0.1745 | 0.4187 | 0.6427 |
| 9 | -0.3730 | -0.8951 | 0.3861 |
| 10 | 0.4674 | 1.1215 | 0.4347 |
| 11 | 0.1689 | 0.4050 | 0.1807 |
| 12 | 0.1357 | 0.3256 | 0.2311 |
| CONSTRUCT | | | |
| 1 | 0.1890 | 0.4535 | 0.7944 |
| 2 | 0.2721 | 0.6528 | 0.5739 |
| 3 | 0.3761 | 0.9023 | 0.1858 |
| 4 | 0.3924 | 0.9415 | 0.1136 |
| 5 | -0.0026 | -0.0062 | 1.0000 |
| 6 | 0.3100 | 0.7438 | 0.4468 |
| 7 | 0.2145 | 0.5145 | 0.7350 |
| 8 | 0.3934 | 0.9440 | 0.1089 |
| 9 | 0.2368 | 0.5682 | 0.6771 |
| 10 | 0.3603 | 0.8646 | 0.2525 |
| 11 | 0.3347 | 0.8032 | 0.3549 |

CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager O (Sandvik)

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNSTRUCT 1 | | | | | | | | | | | | | | | |
| 2 | 0.135 | 82.25 | 3 | 0.212 | 77.73 | 4 | 0.283 | 73.59 | 5 | 0.271 | 74.27 | 6 | 0.461 | 62.55 |
| 7 | 0.380 | 67.69 | 8 | 0.461 | 62.55 | 9 | 0.332 | 70.60 | 10 | 0.289 | 73.19 | 11 | 0.250 | 75.52 |
| UNSTRUCT 2 | | | | | | | | | | | | | | | |
| 3 | 0.742 | 42.09 | 4 | 0.585 | 54.19 | 5 | 0.541 | 57.24 | 6 | 0.424 | 64.90 | 7 | 0.205 | 78.18 |
| 8 | 0.687 | 46.58 | 9 | 0.213 | 77.72 | 10 | 0.498 | 60.13 | 11 | 0.256 | 75.16 | | | | |
| UNSTRUCT 3 | | | | | | | | | | | | | | | |
| 4 | 0.813 | 35.65 | 5 | 0.196 | 78.70 | 6 | 0.565 | 55.62 | 7 | 0.323 | 71.18 | 8 | 0.807 | 36.23 |
| 9 | 0.626 | 51.21 | 10 | 0.827 | 34.18 | 11 | 0.659 | 48.80 | | | | | | | |
| UNSTRUCT 4 | | | | | | | | | | | | | | | |
| 5 | -0.186 | 100.72 | 6 | 0.646 | 49.78 | 7 | 0.449 | 63.34 | 8 | 0.941 | 19.73 | 9 | 0.360 | 68.88 |
| 10 | 0.885 | 27.79 | 11 | 0.827 | 34.16 | | | | | | | | | | |
| UNSTRUCT 5 | | | | | | | | | | | | | | | |
| 6 | -0.029 | 91.69 | 7 | -0.206 | 101.88 | 8 | 0.059 | 86.63 | 9 | -0.045 | 92.58 | 10 | -0.121 | 96.93 |
| 11 | -0.380 | 112.31 | | | | | | | | | | | | | |
| UNSTRUCT 6 | | | | | | | | | | | | | | | |
| 7 | 0.735 | 42.67 | 8 | 0.647 | 49.68 | 9 | 0.383 | 67.49 | 10 | 0.338 | 70.25 | 11 | 0.542 | 57.16 |
| UNSTRUCT 7 | | | | | | | | | | | | | | | |
| 8 | 0.382 | 67.52 | 9 | 0.315 | 71.62 | 10 | 0.193 | 78.87 | 11 | 0.217 | 77.47 | | | | |
| UNSTRUCT 8 | | | | | | | | | | | | | | | |
| 9 | 0.315 | 71.62 | 10 | 0.845 | 32.36 | 11 | 0.786 | 38.15 | | | | | | | |
| UNSTRUCT 9 | | | | | | | | | | | | | | | |
| 10 | 0.517 | 58.84 | 11 | 0.394 | 66.77 | | | | | | | | | | |
| UNSTRUCT 10 | | | | | | | | | | | | | | | |
| 11 | 0.790 | 37.83 | | | | | | | | | | | | | |

ELEMENTS

| | POSITIVE | NEGATIVE | Present 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard Working | Not Hard Working | 2 | 1 | 2 | 2 | 4 | 1 | 3 | 2 | 2 | 1 | 1 | 3 |
| 2 | Forward Thinking | Short Sighted | 2 | 1 | 1 | 2 | 4 | 2 | 2 | 2 | 2 | 1 | 1 | 2 |
| 3 | Conscientious | Not caring | 1 | 2 | 2 | 1 | 4 | 1 | 3 | 3 | 1 | 1 | 1 | 2 |
| 4 | Personality | Uninteresting | 3 | 2 | 3 | 2 | 3 | 1 | 4 | 4 | 4 | 2 | 3 | 3 |
| 5 | Ambitious | Unambitious. | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| 6 | Fair Minded | Selfish | 2 | 2 | 4 | 2 | 4 | 2 | 2 | 3 | 2 | 1 | 2 | 2 |
| 7 | Proffesionalism | Unproffesional | 2 | 1 | 1 | 3 | 4 | 2 | 3 | 3 | 3 | 1 | 2 | 2 |
| 8 | Communicates Ideas | difficult to understand | 1 | 1 | 4 | 2 | 4 | 2 | 3 | 3 | 2 | 1 | 2 | 3 |
| 9 | Positive Attitude | Negative | 1 | 1 | 1 | 1 | 6 | 1 | 4 | 2 | 3 | 1 | 1 | 2 |
| 10 | Open Thoughtful | Unthinking | 1 | 1 | 1 | 3 | 5 | 1 | 2 | 3 | 3 | 1 | 3 | 2 |
| 11 | Well communicated | no planning | 2 | 1 | 1 | 3 | 6 | 2 | 3 | 3 | 4 | 1 | 2 | 2 |
| | Strong character | Weak | 2 | 2 | 1 | 4 | 6 | 2 | 4 | 1 | 4 | 2 | 3 | 3 |

1 2 3 4 5 6 7

Completed Grid - Manager P (Sandvik)

Manager P (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.1604 | -0.4463 | 0.1919 |
| 2 | -0.2887 | -0.8034 | 0.1777 |
| 3 | -0.1229 | -0.3419 | 1.0366 |
| 4 | -0.0022 | -0.0062 | 0.3676 |
| 5 | 0.7909 | 2.2012 | 0.2137 |
| 6 | -0.2108 | -0.5865 | 0.3603 |
| 7 | 0.1999 | 0.5562 | 0.3801 |
| 8 | 0.1099 | 0.3058 | 0.5138 |
| 9 | 0.1076 | 0.2996 | 0.4338 |
| 10 | -0.3446 | -0.9590 | 0.1529 |
| 11 | -0.1406 | -0.3914 | 0.2274 |
| 12 | 0.0618 | 0.1720 | 0.1982 |
| CONSTRUCT | | | |
| 1 | -0.3213 | -0.8943 | 0.2002 |
| 2 | -0.3216 | -0.8951 | 0.1987 |
| 3 | -0.2780 | -0.7736 | 0.4015 |
| 4 | -0.1704 | -0.4742 | 0.7751 |
| 5 | -0.2971 | -0.8269 | 0.3162 |
| 6 | -0.2185 | -0.6082 | 0.6301 |
| 7 | -0.3090 | -0.8599 | 0.2604 |
| 8 | -0.2525 | -0.7028 | 0.5061 |
| 9 | -0.3355 | -0.9338 | 0.1281 |
| 10 | -0.3056 | -0.8504 | 0.2768 |
| 11 | -0.3328 | -0.9263 | 0.1419 |
| 12 | -0.2739 | -0.7623 | 0.4190 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS

Manager P (Sandvik)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.799 | 36.92 | 3 | 0.741 | 42.21 | 4 | 0.509 | 59.43 | 5 | 0.752 | 41.24 | 6 | 0.537 | 57.5 |
| 7 | 0.691 | 46.26 | 8 | 0.711 | 44.70 | 9 | 0.837 | 33.21 | 10 | 0.602 | 53.00 | 11 | 0.725 | 43.5 |
| 12 | 0.650 | 49.46 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.599 | 53.19 | 4 | 0.194 | 78.84 | 5 | 0.818 | 35.13 | 6 | 0.450 | 63.27 | 7 | 0.846 | 32.2 |
| 8 | 0.474 | 61.73 | 9 | 0.819 | 35.01 | 10 | 0.716 | 44.27 | 11 | 0.904 | 25.35 | 12 | 0.718 | 44.1 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.439 | 63.93 | 5 | 0.663 | 48.47 | 6 | 0.663 | 48.47 | 7 | 0.503 | 59.80 | 8 | 0.713 | 44.5 |
| 9 | 0.775 | 39.23 | 10 | 0.511 | 59.28 | 11 | 0.549 | 56.67 | 12 | 0.341 | 70.06 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.073 | 85.82 | 6 | 0.291 | 73.06 | 7 | 0.452 | 63.12 | 8 | 0.422 | 65.06 | 9 | 0.486 | 60.9 |
| 10 | 0.403 | 65.91 | 11 | 0.402 | 66.27 | 12 | 0.176 | 79.85 | | | | | | |
| ONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.538 | 57.42 | 7 | 0.530 | 57.96 | 8 | 0.541 | 57.26 | 9 | 0.770 | 39.62 | 10 | 0.673 | 47.6 |
| 11 | 0.708 | 44.90 | 12 | 0.675 | 47.55 | | | | | | | | | |
| ONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.318 | 71.44 | 8 | 0.827 | 34.19 | 9 | 0.449 | 63.30 | 10 | 0.431 | 64.47 | 11 | 0.425 | 64.8 |
| 12 | 0.116 | 83.32 | | | | | | | | | | | | |
| ONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.439 | 63.97 | 9 | 0.767 | 39.88 | 10 | 0.855 | 31.29 | 11 | 0.944 | 19.20 | 12 | 0.738 | 42.41 |
| ONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.584 | 54.26 | 10 | 0.490 | 60.64 | 11 | 0.469 | 62.05 | 12 | 0.270 | 74.36 | | | |
| ONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.719 | 44.00 | 11 | 0.867 | 29.90 | 12 | 0.777 | 39.02 | | | | | | |
| INSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.893 | 26.75 | 12 | 0.750 | 41.42 | | | | | | | | | |
| NSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.814 | 35.49 | | | | | | | | | | | | |

ELEMENTS

Present Self

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING | 2 | 2 | 1 | 2 | 4 | 3 | 3 | 2 | 4 | 1 | 2 | 2 |
| 2 | POSITIVE APPROACH | INDECISIVE | 2 | 2 | 2 | 2 | 5 | 3 | 4 | 2 | 4 | 1 | 2 | 1 |
| 3 | CONSTRUCTIVE | NOT CONSTRUCTIVE | 1 | 2 | 2 | 1 | 3 | 2 | 3 | 1 | 4 | 1 | 1 | 1 |
| 4 | RESPECT | NOT RESPECTED | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 1 | 2 | 1 |
| 5 | SAME APPROACH | DIFF APPROACH | 2 | 2 | 2 | 2 | 4 | 2 | 3 | 2 | 3 | 1 | 2 | 1 |
| 6 | FORWARD THINKING | RESTRICTED | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 1 | 2 | 2 |
| 7 | BETTER MANAGER | POOR MANAGER | 2 | 2 | 1 | 3 | 4 | 2 | 2 | 2 | 3 | 1 | 2 | 2 |
| 8 | EFFECTIVE | IN EFFECTIVE | 2 | 2 | 1 | 2 | 4 | 2 | 2 | 2 | 3 | 1 | 2 | 2 |
| 9 | CONSISTANT | IN CONSISTANT | 1 | 2 | 2 | 2 | 3 | 1 | 3 | 2 | 3 | 1 | 2 | 1 |
| 10 | SUCCESSFUL | LIMITED | 2 | 2 | 1 | 2 | 3 | 2 | 3 | 2 | 3 | 1 | 2 | 2 |
| 11 | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | |

1 2 3 4 5 6 7

Completed Grid - Manager Q (Sandvik)

Manager Q (Sandvik)

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| | COMPONENT 1 | | |
| 1 | 0.1225 | 0.3489 | 0.1031 |
| 2 | 0.0529 | 0.1507 | 0.0244 |
| 3 | 0.2158 | 0.6146 | 0.4053 |
| 4 | 0.0470 | 0.1338 | 0.1734 |
| 5 | -0.5749 | -1.6378 | 0.1711 |
| 6 | 0.0286 | 0.0815 | 0.1923 |
| 7 | -0.3150 | -0.8974 | 0.2215 |
| 8 | 0.0830 | 0.2366 | 0.0483 |
| 9 | -0.4571 | -1.3022 | 0.1028 |
| 10 | 0.4691 | 1.3363 | 0.0678 |
| 11 | 0.0830 | 0.2366 | 0.0483 |
| 12 | 0.2451 | 0.6984 | 0.2659 |
| CONSTRUCT | | | |
| 1 | 0.3262 | 0.9294 | 0.1363 |
| 2 | 0.3367 | 0.9591 | 0.0801 |
| 3 | 0.2933 | 0.8355 | 0.3019 |
| 4 | 0.3263 | 0.9296 | 0.1359 |
| 5 | 0.3342 | 0.9521 | 0.0936 |
| 6 | 0.3329 | 0.9484 | 0.1005 |
| 7 | 0.2846 | 0.8107 | 0.3427 |
| 8 | 0.3059 | 0.8714 | 0.2406 |
| 9 | 0.2953 | 0.8412 | 0.2924 |
| 10 | 0.3217 | 0.9164 | 0.1603 |

CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager Q (Sandvik)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.891 | 26.93 | 3 | 0.777 | 39.02 | 4 | 0.782 | 38.51 | 5 | 0.811 | 35.81 | 6 | 0.853 | 31.48 |
| 7 | 0.811 | 35.81 | 8 | 0.893 | 26.80 | 9 | 0.621 | 51.62 | 10 | 0.921 | 22.99 | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.852 | 31.56 | 4 | 0.930 | 21.61 | 5 | 0.964 | 15.52 | 6 | 0.887 | 27.55 | 7 | 0.701 | 45.51 |
| 8 | 0.784 | 38.38 | 9 | 0.784 | 38.38 | 10 | 0.820 | 34.88 | | | | | | |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.814 | 35.49 | 5 | 0.775 | 39.16 | 6 | 0.815 | 35.37 | 7 | 0.458 | 62.73 | 8 | 0.575 | 54.89 |
| 9 | 0.761 | 40.47 | 10 | 0.682 | 46.99 | | | | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.950 | 18.17 | 6 | 0.903 | 25.47 | 7 | 0.624 | 51.36 | 8 | 0.672 | 47.81 | 9 | 0.872 | 29.34 |
| 10 | 0.797 | 37.13 | | | | | | | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.880 | 28.24 | 7 | 0.739 | 42.34 | 8 | 0.801 | 36.77 | 9 | 0.847 | 32.13 | 10 | 0.787 | 38.07 |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.692 | 46.25 | 8 | 0.761 | 40.43 | 9 | 0.827 | 34.17 | 10 | 0.903 | 25.47 | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.938 | 20.22 | 9 | 0.572 | 55.10 | 10 | 0.787 | 38.07 | | | | | | |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.590 | 53.32 | 10 | 0.843 | 32.53 | | | | | | | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.700 | 45.56 | | | | | | | | | | | | |

CONSTRUCTS

| | POSITIVE | NEGATIVE | Present Self | T... | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 6 | 1 | 2 | 2 |
| 2 | AMBITIOUS | NOT AMBITIOUS | 4 | 1 | 1 | 5 | 7 | 3 | 1 | 1 | 7 | 2 | 2 | 6 |
| 3 | OPTIMISTIC | PESSIMISTIC | 2 | 2 | 2 | 3 | 7 | 2 | 4 | 2 | 6 | 1 | 1 | 3 |
| 4 | COOPERATIVE | UNCOOPERATIVE | 2 | 2 | 4 | 1 | 2 | 2 | 6 | 3 | 4 | 2 | 1 | 2 |
| 5 | CAPABLE | INCAPABLE | 2 | 1 | 1 | 1 | 4 | 2 | 2 | 2 | 6 | 1 | 2 | 2 |
| 6 | POSITIVE APPROACH | NEGATIVE APPROACH | 3 | 2 | 1 | 3 | 6 | 3 | 3 | 2 | 5 | 1 | 3 | 3 |
| 7 | CONSIDERATE | INCONSIDERATE | 3 | 4 | 6 | 1 | 1 | 3 | 5 | 4 | 3 | 2 | 2 | 2 |
| 8 | LOYAL | DISLOYAL | 2 | 3 | 4 | 1 | 2 | 2 | 6 | 6 | 6 | 1 | 2 | 2 |
| 9 | RESOLUTE | IRRESOLUTE | 3 | 2 | 1 | 3 | 7 | 3 | 3 | 2 | 5 | 1 | 3 | 4 |
| 10 | LOGICAL | ILLOGICAL | 1 | 1 | 1 | 2 | 4 | 1 | 2 | 1 | 5 | 1 | 1 | 1 |
| 11 | MODEST | IMMODEST | 3 | 6 | 7 | 1 | 1 | 3 | 7 | 7 | 1 | 4 | 3 | 4 |
| | RATIONAL | IRRATIONAL | 2 | 2 | 2 | 3 | 5 | 2 | 3 | 2 | 4 | 1 | 2 | 2 |

1 2 3 4 5 6 7

Completed Grid - Manager R (Sandvik)

Manager R (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.0468 | -0.1262 | 0.1202 |
| 2 | -0.2163 | -0.5835 | 0.0733 |
| 3 | -0.3252 | -0.8774 | 0.4233 |
| 4 | 0.0481 | 0.1297 | 0.6862 |
| 5 | 0.5891 | 1.5894 | 0.2730 |
| 6 | -0.0618 | -0.1666 | 0.1031 |
| 7 | -0.0500 | -0.1348 | 1.1515 |
| 8 | -0.1945 | -0.5247 | 0.3674 |
| 9 | 0.6018 | 1.6234 | 0.6293 |
| 10 | -0.2858 | -0.7709 | 0.3162 |
| 11 | -0.0853 | -0.2300 | 0.3103 |
| 12 | 0.0265 | 0.0715 | 0.2677 |
| CONSTRUCT | | | |
| 1 | -0.2975 | -0.3026 | 0.3559 |
| 2 | -0.3201 | -0.8635 | 0.2544 |
| 3 | -0.3386 | -0.9134 | 0.1656 |
| 4 | -0.0152 | -0.0409 | 0.9983 |
| 5 | -0.3325 | -0.8972 | 0.1351 |
| 6 | -0.3565 | -0.9617 | 0.0752 |
| 7 | 0.1756 | 0.4739 | 0.7754 |
| 8 | -0.0464 | -0.1251 | 0.9843 |
| 9 | -0.3479 | -0.9387 | 0.1189 |
| 10 | -0.3437 | -0.9272 | 0.1402 |
| 11 | 0.2690 | 0.7259 | 0.4732 |
| 12 | -0.3346 | -0.9027 | 0.1851 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager R (Sandvik)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | |
| 2 | 0.579 | 54.61 | 3 | 0.693 | 46.15 | 4 | 0.275 | 74.05 | 5 | 0.958 | 16.68 |
| 7 | -0.088 | 95.07 | 8 | 0.488 | 60.81 | 9 | 0.642 | 50.05 | 10 | 0.827 | 34.23 |
| 12 | 0.625 | 51.29 | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | |
| 3 | 0.715 | 44.32 | 4 | -0.246 | 104.26 | 5 | 0.684 | 46.86 | 6 | 0.800 | 36.83 |
| 8 | -0.224 | 102.93 | 9 | 0.833 | 33.59 | 10 | 0.702 | 45.43 | 11 | -0.836 | 146.74 |
| CONSTRUCT 3 | | | | | | | | | | | |
| 4 | 0.321 | 71.28 | 5 | 0.796 | 37.22 | 6 | 0.868 | 29.79 | 7 | -0.220 | 102.71 |
| 9 | 0.867 | 29.86 | 10 | 0.917 | 23.47 | 11 | -0.454 | 116.97 | 12 | 0.956 | 17.08 |
| CONSTRUCT 4 | | | | | | | | | | | |
| 5 | 0.250 | 75.49 | 6 | -0.018 | 91.04 | 7 | 0.737 | 42.49 | 8 | 0.830 | 33.90 |
| 10 | 0.267 | 74.52 | 11 | 0.524 | 58.39 | 12 | 0.203 | 78.30 | | | |
| CONSTRUCT 5 | | | | | | | | | | | |
| 6 | 0.823 | 34.61 | 7 | -0.202 | 101.63 | 8 | 0.412 | 65.64 | 9 | 0.770 | 39.63 |
| 11 | -0.522 | 121.49 | 12 | 0.741 | 42.17 | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | |
| 7 | -0.492 | 119.45 | 8 | 0.068 | 86.10 | 9 | 0.980 | 11.50 | 10 | 0.824 | 34.52 |
| 12 | 0.898 | 26.10 | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | |
| 8 | 0.675 | 47.54 | 9 | -0.529 | 121.94 | 10 | -0.261 | 105.16 | 11 | 0.829 | 33.98 |
| CONSTRUCT 8 | | | | | | | | | | | |
| 9 | -0.002 | 90.13 | 10 | 0.321 | 71.26 | 11 | 0.482 | 61.16 | 12 | 0.238 | 76.20 |
| CONSTRUCT 9 | | | | | | | | | | | |
| 10 | 0.769 | 39.70 | 11 | -0.666 | 131.78 | 12 | 0.873 | 29.20 | | | |
| CONSTRUCT 10 | | | | | | | | | | | |
| 11 | -0.577 | 125.21 | 12 | 0.894 | 26.66 | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | |
| 12 | -0.515 | 121.01 | | | | | | | | | |

ELEMENTS

Present Self

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard Working | Not Hard working | 5 | 2 | 4 | 2 | 2 | 4 | 5 | 5 | 2 | 4 | 5 | 4 |
| 2 | Broad outlook | legalistic | 2 | 2 | 4 | 5 | 6 | 2 | 5 | 5 | 5 | 4 | 2 | 2 |
| 3 | Sincere. | Ambitious | 3 | 4 | 4 | 1 | 1 | 4 | 5 | 5 | 6 | 2 | 4 | 3 |
| 4 | Warm Personality | Cold Personality | 4 | 5 | 4 | 5 | 1 | 2 | 6 | 5 | 4 | 4 | 5 | 4 |
| 5 | short term achievement | Vacillation | 6 | 5 | 4 | 2 | 4 | 6 | 3 | 2 | 3 | 4 | 6 | 5 |
| 6 | sense of position | irresponsible | 6 | 5 | 3 | 2 | 1 | 5 | 2 | 2 | 3 | 4 | 6 | 4 |
| 7 | judgement | bad judgement | 3 | 4 | 4 | 5 | 1 | 2 | 5 | 5 | 5 | 2 | 4 | 2 |
| 8 | Smooth. | obvious. | 4 | 5 | 4 | 5 | 1 | 2 | 4 | 5 | 5 | 4 | 5 | 5 |
| 9 | Mature | immature | 3 | 3 | 3 | 5 | 1 | 3 | 5 | 5 | 6 | 2 | 4 | 3 |
| 10 | independent | Dependent | 2 | 5 | 4 | 5 | 6 | 2 | 4 | 4 | 6 | 3 | 3 | 3 |
| 11 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

1 2 3 4 5 6 7

Completed Grid - Manager s (Sandvik)

572

Manager S (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | -0.3494 | -0.9194 | 0.1095 |
| 2 | -0.0419 | -0.1103 | 0.4530 |
| 3 | -0.0567 | -0.1491 | 0.1084 |
| 4 | 0.3175 | 0.8356 | 0.1619 |
| 5 | 0.5608 | 1.4759 | 0.2385 |
| 6 | -0.4129 | -1.0865 | 0.3731 |
| 7 | 0.1440 | 0.3791 | 0.4172 |
| 8 | 0.2159 | 0.5679 | 0.1420 |
| 9 | 0.2762 | 0.7269 | 0.2477 |
| 10 | -0.2352 | -0.6190 | 0.2851 |
| 11 | -0.1900 | -0.5000 | 0.3891 |
| 12 | -0.2284 | -0.6010 | 0.1489 |
| CONSTRUCT | | | |
| 1 | 0.2614 | 0.6879 | 0.5266 |
| 2 | -0.3326 | -0.8753 | 0.2338 |
| 3 | -0.3381 | -0.8644 | 0.2178 |
| 4 | -0.2662 | -0.7832 | 0.4329 |
| 5 | 0.2860 | 0.7526 | 0.4335 |
| 6 | 0.3274 | 0.8615 | 0.2578 |
| 7 | -0.3531 | -0.9293 | 0.1305 |
| 8 | -0.2811 | -0.7399 | 0.4526 |
| 9 | -0.3404 | -0.8959 | 0.1974 |
| 10 | -0.3430 | -0.9025 | 0.1854 |

CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager S (Sandvik)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ONSTRUCT 1 | | | | | | | | | | | |
| 2 | -0.470 | 118.01 | 3 | -0.653 | 130.80 | 4 | -0.265 | 105.39 | 5 | 0.499 | 60.10 |
| 7 | -0.523 | 121.55 | 8 | -0.534 | 122.26 | 9 | -0.510 | 120.68 | 10 | -0.822 | 145.28 |
| ONSTRUCT 2 | | | | | | | | | | | |
| 3 | 0.708 | 44.92 | 4 | 0.581 | 54.50 | 5 | -0.849 | 148.12 | 6 | -0.929 | 158.24 |
| 8 | 0.468 | 62.10 | 9 | 0.750 | 41.41 | 10 | 0.706 | 45.11 | | | |
| ONSTRUCT 3 | | | | | | | | | | | |
| 4 | 0.538 | 57.45 | 5 | -0.593 | 126.40 | 6 | -0.710 | 135.20 | 7 | 0.868 | 29.76 |
| 9 | 0.906 | 25.04 | 10 | 0.778 | 38.88 | | | | | | |
| ONSTRUCT 4 | | | | | | | | | | | |
| 5 | -0.408 | 114.09 | 6 | -0.572 | 124.90 | 7 | 0.811 | 35.85 | 8 | 0.813 | 35.60 |
| 10 | 0.616 | 51.99 | | | | | | | | | |
| ONSTRUCT 5 | | | | | | | | | | | |
| 6 | 0.344 | 69.42 | 7 | -0.564 | 124.36 | 8 | -0.328 | 109.16 | 9 | -0.542 | 122.83 |
| ONSTRUCT 6 | | | | | | | | | | | |
| 7 | -0.705 | 134.86 | 8 | -0.470 | 118.00 | 9 | -0.706 | 134.88 | 10 | -0.685 | 133.23 |
| ONSTRUCT 7 | | | | | | | | | | | |
| 8 | 0.711 | 44.69 | 9 | 0.904 | 25.36 | 10 | 0.815 | 35.44 | | | |
| ONSTRUCT 8 | | | | | | | | | | | |
| 9 | 0.644 | 49.91 | 10 | 0.712 | 44.57 | | | | | | |
| ONSTRUCT 9 | | | | | | | | | | | |
| 10 | 0.748 | 41.56 | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Ideal Self | 11 Past Self | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING | 1.5 | 1 | 1 | 2 | 4 | 2 | | 2 | 3 | 1 | 1 | 1 |
| 2 | CAPABLE. | NOW EFFICIENT. | 1 | 1 | 1 | 2 | 3 | 1 | | 1 | 2 | 1 | 1 | 1 |
| 3 | GOOD. COMMUNICATION. | INABILITY TO EXPRESS. | 1 | 3 | 2 | 2 | 3 | 3 | - | 2 | 2 | 1 | 1 | 1 |
| 4 | GOOD REASONING. | ILLOGICAL. | 1 | 2 | 1 | 1 | 3 | 1 | | 1 | 2 | 1 | 1 | 1 |
| 5 | OBJECTIVES. | NO PLANNING. ABILITY. | 2 | 1 | 1 | 2 | 3 | 3 | | 2 | 2 | 1 | 2 | 1 |
| 6 | TECHNICAL ABILITY | LACK OF TECH. ABILITY | 2 | 2 | 3 | 2 | 3 | 1 | | 2 | 2 | 1 | 2 | 2 |
| 7 | GETTING ON WITH PEOPLE. | NON CO-OPERATION | 1 | 3 | 1 | 2 | 2 | 2 | | 2 | 3 | 1 | 1 | 1 |
| 8 | ANALYTICAL. | NON ANALYTICAL | 2 | 2 | 1 | 2 | 3 | 2 | | 1 | 2 | 1 | 2 | 1 |
| 9 | BROAD. OUTLOOK | SHORT SIGHTED. | 1 | 1 | 1 | 1 | 2 | 2 | | 3 | 2 | 1 | 2 | 2 |
| 10 | GOOD MANAGER | BAD MANAGER | 1 | 1 | 1 | 1 | 3 | 3 | | 3 | 3 | 1 | 2 | 1 |
| 11 | GOOD DECISION | BAD DECISION | 1 | 1 | 1 | 1 | 2 | 2 | | 2 | 2 | 1 | 2 | 1 |
| 12 | EXPERIENCE | LACK OF EXPERIENCE | 1 | 1 | 1 | 1 | 2 | 2 | | 2 | 1 | 1 | 2 | 1 |

Completed Grid - Manager 'T' (Sandvik)

575

## Manager T (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.2395 | -0.5938 | 0.2726 |
| 2 | -0.0836 | -0.2073 | 0.9843 |
| 3 | -0.2927 | -0.7257 | 0.4517 |
| 4 | -0.0581 | -0.1441 | 0.4279 |
| 5 | 0.6605 | 1.6376 | 0.5155 |
| 6 | 0.2478 | 0.6145 | 0.8300 |
| 7 | 0.1552 | 0.3849 | 0.8851 |
| 8 | 0.2971 | 0.7366 | 0.4167 |
| 9 | -0.3741 | -0.9276 | 0.2364 |
| 10 | -0.0016 | -0.0040 | 0.6396 |
| 11 | -0.3110 | -0.7710 | 0.1924 |
| CONSTRUCT | | | |
| 1 | -0.3691 | -0.9152 | 0.1623 |
| 2 | -0.2951 | -0.7316 | 0.4647 |
| 3 | -0.2686 | -0.6661 | 0.5563 |
| 4 | -0.2903 | -0.7197 | 0.4821 |
| 5 | -0.3346 | -0.8296 | 0.3117 |
| 6 | -0.0996 | -0.2470 | 0.9390 |
| 7 | -0.2323 | -0.5761 | 0.6681 |
| 8 | -0.2925 | -0.7252 | 0.4741 |
| 9 | -0.2276 | -0.5644 | 0.6815 |
| 10 | -0.3533 | -0.8761 | 0.2325 |
| 11 | -0.3319 | -0.8229 | 0.3229 |
| 12 | -0.2684 | -0.6656 | 0.5570 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager T (Sandvik)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.895 | 26.45 | 3 | 0.564 | 55.69 | 4 | 0.748 | 41.55 | 5 | 0.720 | 43.94 | 6 | 0.313 | 71.7 |
| 7 | 0.527 | 58.19 | 8 | 0.641 | 50.14 | 9 | 0.428 | 64.68 | 10 | 0.753 | 41.19 | 11 | 0.638 | 50.3 |
| 12 | 0.411 | 65.75 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.422 | 65.05 | 4 | 0.780 | 38.74 | 5 | 0.539 | 57.40 | 6 | 0.469 | 62.03 | 7 | 0.394 | 66.7 |
| 8 | 0.709 | 44.85 | 9 | 0.100 | 84.26 | 10 | 0.412 | 65.66 | 11 | 0.336 | 70.39 | 12 | 0.160 | 80.7 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.600 | 53.11 | 5 | 0.452 | 63.15 | 6 | 0.190 | 79.03 | 7 | 0.723 | 43.67 | 8 | 0.507 | 59.5 |
| 9 | 0.114 | 83.48 | 10 | 0.468 | 62.10 | 11 | 0.335 | 70.42 | 12 | 0.325 | 71.02 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.341 | 70.05 | 6 | 0.469 | 62.03 | 7 | 0.583 | 54.33 | 8 | 0.709 | 44.85 | 9 | 0.100 | 84.2 |
| 10 | 0.412 | 65.66 | 11 | 0.336 | 70.39 | 12 | 0.160 | 80.77 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.000 | 90.00 | 7 | 0.246 | 75.73 | 8 | 0.712 | 44.64 | 9 | 0.449 | 63.32 | 10 | 0.765 | 40.1 |
| 11 | 0.742 | 42.10 | 12 | 0.720 | 43.94 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.000 | 90.00 | 8 | 0.245 | 75.85 | 9 | 0.000 | 90.00 | 10 | 0.000 | 90.00 | 11 | 0.000 | 90.0 |
| 12 | 0.000 | 90.00 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.429 | 64.59 | 9 | 0.171 | 80.13 | 10 | 0.448 | 63.41 | 11 | 0.332 | 70.60 | 12 | 0.023 | 88.6 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | -0.021 | 91.19 | 10 | 0.387 | 67.25 | 11 | 0.404 | 66.18 | 12 | 0.334 | 70.47 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.797 | 37.18 | 11 | 0.800 | 36.83 | 12 | 0.722 | 43.81 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.958 | 16.75 | 12 | 0.753 | 41.19 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.824 | 34.10 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Present | | | | | | | | | | | |
| 1 | HARD WORKING | NOT HARD WORKING | 2 | 1 | 2 | 2 | 6 | 2 | 6 | 3 | 6 | 2 | 3 | 2 |
| 2 | OPEN / STRAIGHTFORWARD. | CLOSED / NEGATIVE. | 1 | 2 | 3 | 3 | 3 | 2 | 4 | 3 | 4 | 1 | 2 | 2 |
| 3 | RELIABLE. | CASUAL. | 2 | 2 | 3 | 2 | 4 | 3 | 5 | 4 | 4 | 3 | 3 | 3 |
| 4 | MOST HELPFUL. | UNCOOPERATIVE. | 3 | 2 | 3 | 2 | 4 | 3 | 5 | 4 | 3 | 3 | 4 | 3 |
| 5 | STRIVES FOR SUCESS | NARROW INROADS. | 3 | 2 | 2 | 3 | 5 | 2 | 5 | 3 | 4 | 3 | 4 | 3 |
| 6 | INSPIRES BY EXAMPLE. | SHOWS NO EXAMPLE. | 2 | 1 | 2 | 3 | 6 | 2 | 5 | 3 | 4 | 2 | 4 | 3 |
| 7 | PAYS INTEREST. | UNINTERESTED | 3 | 3 | 3 | 3 | 5 | 3 | 5 | 4 | 4 | 3 | 4 | 3 |
| 8 | VERY EFFICIENT | NOT EFFECTIVE. | 3 | 2 | 3 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 3 |
| 9 | DILIGENT. | LAX. | 2 | 2 | 2 | 2 | 5 | 3 | 5 | 3 | 5 | 2 | 3 | 3 |
| 10 | MAKING PROGRESS | SLOW TO REALISE. | 4 | 2 | 3 | 3 | 5 | 2 | 5 | 3 | 5 | 3 | 5 | 3 |
| 11 | VERY CREATIVE | NOT ADVENTUROUS | 4 | 4 | 4 | 3 | 5 | 2 | 4 | 4 | 5 | 3 | 5 | 4 |
| 12 | DECISION MAKING. | RELIED ON OTHERS TO MAKE DECISIONS | 2 | 3 | 3 | 4 | 6 | 2 | 5 | 4 | 5 | 1 | 3 | 2 |
| | 1 2 3 4 | 5 6 7 | | | | | | | | | | | | |

Completed Grid - Manager U (Sandvik)

578

## Manager U (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.1911 | -0.5680 | 0.3223 |
| 2 | -0.3324 | -0.9880 | 0.1975 |
| 3 | -0.1498 | -0.4450 | 0.1931 |
| 4 | -0.1968 | -0.5850 | 0.3958 |
| 5 | 0.4856 | 1.4432 | 0.1250 |
| 6 | -0.2755 | -0.8188 | 0.3693 |
| 7 | 0.5039 | 1.4974 | 0.2090 |
| 8 | 0.0345 | 0.1025 | 0.3192 |
| 9 | 0.3448 | 1.0247 | 0.2997 |
| 10 | -0.2627 | -0.7807 | 0.2442 |
| 11 | 0.1545 | 0.4591 | 0.3936 |
| 12 | -0.1149 | -0.3414 | 0.0999 |
| CONSTRUCT | | | |
| 1 | -0.3245 | -0.9642 | 0.0703 |
| 2 | -0.2359 | -0.7009 | 0.5087 |
| 3 | -0.2806 | -0.8340 | 0.3044 |
| 4 | -0.2591 | -0.7700 | 0.4071 |
| 5 | -0.3111 | -0.9246 | 0.1452 |
| 6 | -0.3169 | -0.9417 | 0.1133 |
| 7 | -0.3215 | -0.9554 | 0.0871 |
| 8 | -0.2842 | -0.8445 | 0.2868 |
| 9 | -0.3110 | -0.9243 | 0.1458 |
| 10 | -0.2957 | -0.8789 | 0.2276 |
| 11 | -0.2249 | -0.6683 | 0.5534 |
| 12 | -0.2777 | -0.8253 | 0.3189 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager U (Sandvik)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | |
| 2 | 0.720 | 43.98 | 3 | 0.838 | 33.05 | 4 | 0.673 | 47.68 | 5 | 0.882 | 28.15 | 6 | 0.891 | 27. |
| 7 | 0.902 | 25.55 | 8 | 0.776 | 39.08 | 9 | 0.957 | 16.85 | 10 | 0.827 | 34.17 | 11 | 0.556 | 56. |
| 12 | 0.817 | 35.17 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.679 | 47.25 | 4 | 0.367 | 68.44 | 5 | 0.474 | 61.72 | 6 | 0.598 | 53.25 | 7 | 0.631 | 50. |
| 8 | 0.454 | 62.98 | 9 | 0.696 | 45.86 | 10 | 0.429 | 64.57 | 11 | 0.353 | 69.30 | 12 | 0.850 | 31. |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.840 | 32.88 | 5 | 0.689 | 46.43 | 6 | 0.728 | 43.29 | 7 | 0.836 | 33.31 | 8 | 0.557 | 56. |
| 9 | 0.847 | 32.10 | 10 | 0.569 | 55.32 | 11 | 0.341 | 70.06 | 12 | 0.604 | 52.81 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.721 | 43.85 | 6 | 0.709 | 44.84 | 7 | 0.827 | 34.17 | 8 | 0.612 | 52.26 | 9 | 0.656 | 49. |
| 10 | 0.654 | 49.19 | 11 | 0.379 | 67.73 | 12 | 0.421 | 65.13 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.940 | 19.95 | 7 | 0.896 | 26.33 | 8 | 0.789 | 37.87 | 9 | 0.816 | 35.29 | 10 | 0.906 | 25. |
| 11 | 0.553 | 53.27 | 12 | 0.690 | 46.34 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.907 | 24.93 | 8 | 0.775 | 39.16 | 9 | 0.859 | 30.78 | 10 | 0.834 | 33.51 | 11 | 0.565 | 55.5 |
| 12 | 0.765 | 38.27 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.711 | 44.69 | 9 | 0.871 | 29.48 | 10 | 0.779 | 38.79 | 11 | 0.584 | 54.29 | 12 | 0.817 | 35.2 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.740 | 42.30 | 10 | 0.918 | 23.41 | 11 | 0.776 | 39.13 | 12 | 0.562 | 55.81 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.719 | 44.05 | 11 | 0.495 | 60.31 | 12 | 0.767 | 39.92 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.744 | 41.91 | 12 | 0.608 | 52.54 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.562 | 55.81 | | | | | | | | | | | | |

Completed Grid - Manager V (Sandvik)

| CONSTRUCTS | | | Present | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1 | Hard working | Not hard working | 3 | 2 | 5 | 3 | 5 | 3 | 1 | 2 | 6 | 2 | 2 | 3 |
| 2 | unselfish | selfish | 2 | 4 | 5 | 3 | 5 | 4 | 6 | 6 | 4 | 2 | 1 | 2 |
| 3 | broad minded | narrow minded | 2 | 2 | 2 | 4 | 5 | 3 | 6 | 4 | 5 | 2 | 4 | 3 |
| 4 | not complacent | complacent | 2 | 2 | 2 | 2 | 4 | 3 | 1 | 2 | 4 | 2 | 2 | 2 |
| 5 | ambitious | not ambitious | 3 | 1 | 1 | 4 | 6 | 6 | 5 | 2 | 6 | 2 | 4 | 3 |
| 6 | adaptable | not adaptable | 1 | 2 | 3 | 2 | 5 | 4 | 6 | 4 | 6 | 1 | 3 | 1 |
| 7 | enthusiastic | un-enthusiastic | 2 | 2 | 2 | 3 | 4 | 3 | 3 | 3 | 4 | 1 | 2 | 2 |
| 8 | not careless | careless | 3 | 3 | 4 | 2 | 3 | 2 | 1 | 4 | 2 | 2 | 2 | 2 |
| 9 | to achieve full potential | not to ---- | 2 | 2 | 1 | 2 | 5 | 1 | 2 | 2 | 4 | 1 | 3 | 3 |
| 10 | likes change (adapt) | does not like to change (adapt) | 1 | 3 | 2 | 1 | 4 | 1 | 6 | 3 | 6 | 1 | 2 | 2 |
| 11 | not waste themselves | waste themselves | 2 | 2 | 2 | 1 | 5 | 2 | 5 | 3 | 4 | 1 | 4 | 3 |
| 12 | thinks in context | thinks out of context | 2 | 3 | 4 | 3 | 4 | 2 | 5 | 4 | 4 | 1 | 4 | 2 |

Manager V (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | 0.2845 | 0.7138 | 0.1019 |
| 2 | 0.2048 | 0.5139 | 0.2237 |
| 3 | 0.1562 | 0.3919 | 0.8273 |
| 4 | 0.1054 | 0.2645 | 0.2967 |
| 5 | -0.4837 | -1.2137 | 0.3884 |
| 6 | 0.0353 | 0.0885 | 0.5764 |
| 7 | -0.3604 | -0.9042 | 1.3119 |
| 8 | -0.0517 | -0.1297 | 0.6402 |
| 9 | -0.5026 | -1.2610 | 0.3755 |
| 10 | 0.4407 | 1.1057 | 0.1702 |
| 11 | 0.0070 | 0.0176 | 0.5205 |
| 12 | 0.1645 | 0.4126 | 0.2716 |
| CONSTRUCT | | | |
| 1 | 0.1631 | 0.4092 | 0.8325 |
| 2 | 0.2200 | 0.5521 | 0.6952 |
| 3 | 0.3548 | 0.8901 | 0.2077 |
| 4 | 0.2135 | 0.5356 | 0.7131 |
| 5 | 0.2921 | 0.7329 | 0.4428 |
| 6 | 0.3677 | 0.9226 | 0.1489 |
| 7 | 0.3583 | 0.8990 | 0.1918 |
| 8 | -0.0764 | -0.1917 | 0.9633 |
| 9 | 0.2848 | 0.7145 | 0.4895 |
| 10 | 0.3378 | 0.8475 | 0.2817 |
| 11 | 0.3388 | 0.8500 | 0.2774 |
| 12 | 0.2982 | 0.7481 | 0.4403 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager V (Sandvik)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.121 | 83.07 | 3 | 0.066 | 86.24 | 4 | 0.794 | 37.45 | 5 | 0.302 | 72.40 | 6 | 0.288 | 73. |
| 7 | 0.458 | 60.16 | 8 | 0.301 | 72.51 | 9 | 0.474 | 61.68 | 10 | 0.210 | 77.91 | 11 | 0.136 | 82. |
| 12 | 0.143 | 81.76 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.433 | 64.31 | 4 | 0.082 | 85.31 | 5 | 0.096 | 84.46 | 6 | 0.696 | 45.87 | 7 | 0.564 | 55. |
| 8 | 0.301 | 72.48 | 9 | 0.015 | 89.16 | 10 | 0.586 | 54.09 | 11 | 0.362 | 68.77 | 12 | 0.624 | 51. |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.222 | 77.15 | 5 | 0.717 | 44.18 | 6 | 0.818 | 35.14 | 7 | 0.767 | 39.89 | 8 | -0.436 | 115. |
| 9 | 0.588 | 53.99 | 10 | 0.757 | 40.82 | 11 | 0.797 | 37.16 | 12 | 0.717 | 44.22 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.581 | 54.49 | 6 | 0.406 | 66.05 | 7 | 0.645 | 49.86 | 8 | 0.113 | 83.50 | 9 | 0.638 | 50.3 |
| 10 | 0.243 | 75.93 | 11 | 0.268 | 74.48 | 12 | 0.029 | 88.36 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.649 | 49.56 | 7 | 0.747 | 41.66 | 8 | -0.561 | 124.13 | 9 | 0.537 | 57.55 | 10 | 0.406 | 66.0 |
| 11 | 0.557 | 56.17 | 12 | 0.236 | 76.34 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.809 | 35.96 | 8 | -0.163 | 99.38 | 9 | 0.412 | 65.64 | 10 | 0.825 | 34.39 | 11 | 0.747 | 41.6 |
| 12 | 0.768 | 39.79 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | -0.056 | 93.20 | 9 | 0.629 | 51.03 | 10 | 0.627 | 51.19 | 11 | 0.588 | 54.02 | 12 | 0.578 | 54.6 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | -0.082 | 94.68 | 10 | -0.220 | 102.72 | 11 | -0.215 | 102.41 | 12 | 0.084 | 85.17 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.539 | 57.36 | 11 | 0.719 | 44.01 | 12 | 0.392 | 66.92 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.792 | 37.59 | 12 | 0.737 | 42.51 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.724 | 43.64 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Ideal Self | 11 Past Self | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard working | Not Hard working | 3 | 2 | 1 | 3 | 5 | 3 | 4 | 2 | 4 | 1 | 1 | 1 |
| 2 | Successful. | Not Successful. | 5 | 3 | 1 | 4 | 6 | 3 | 7 | 4 | 6 | 2 | 3 | 3 |
| 3 | Extrovert. | introvert | 1 | 1 | 1 | 1 | 5 | 1 | 6 | 1 | 3 | 1 | 1 | 1 |
| 4 | Loyalty. | disloyalty. | 1 | 2 | 1 | 3 | 7 | 2 | 7 | 3 | 4 | 1 | 1 | 3 |
| 5 | determination | acceptance. | 2 | 2 | 1 | 2 | 6 | 1 | 6 | 2 | 4 | 1 | 3 | 4 |
| 6 | Cooperation. | uncooperative | 2 | 2 | 1 | 3 | 7 | 2 | 7 | 3 | 3 | 1 | 1 | 3 |
| 7 | Education (on life) | Contempt. | 1 | 2 | 1 | 3 | 5 | 1 | 6 | 2 | 3 | 1 | 1 | 2 |
| 8 | Dance of Human. | Lack of Human. | 1 | 3 | 2 | 2 | 4 | 1 | 4 | 2 | 4 | 1 | 1 | 2 |
| 9 | Learning | Unaware. | 3 | 1 | 1 | 3 | 6 | 1 | 6 | 2 | 4 | 1 | 1 | 4 |
| 10 | Achievement | disappointment. | 4 | 2 | 1 | 3 | 7 | 2 | 6 | 3 | 4 | 1 | 1 | 4 |
| 11 | Administration. | Lax Administration. | 3 | 2 | 1 | 1 | 7 | 1 | 7 | 1 | 5 | 1 | 1 | 1 |
| 12 | Understanding | Not to understanding | 2 | 2 | 2 | 3 | 6 | 2 | 6 | 3 | 4 | 1 | 1 | 3 |

1 2 3 4 5 6 7

Completed Grid - Manager W (Sandvik)

## Manager W (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.0980 | -0.3134 | 0.2690 |
| 2 | -0.1440 | -0.4604 | 0.1478 |
| 3 | -0.2851 | -0.9115 | 0.2301 |
| 4 | -0.0390 | -0.1246 | 0.1120 |
| 5 | 0.5568 | 1.7803 | 0.0343 |
| 6 | -0.2112 | -0.6754 | 0.0735 |
| 7 | 0.5715 | 1.8272 | 0.0973 |
| 8 | -0.0706 | -0.2256 | 0.0782 |
| 9 | 0.2177 | 0.6962 | 0.1544 |
| 10 | -0.3200 | -1.0232 | 0.1076 |
| 11 | -0.2212 | -0.7072 | 0.2730 |
| 12 | 0.0431 | 0.1377 | 0.2004 |

CONSTRUCT

| | | | |
|---|---|---|---|
| 1 | -0.2341 | -0.7486 | 0.4396 |
| 2 | -0.2749 | -0.8790 | 0.2273 |
| 3 | -0.2922 | -0.9342 | 0.1273 |
| 4 | -0.3040 | -0.9719 | 0.0555 |
| 5 | -0.2949 | -0.9427 | 0.1113 |
| 6 | -0.3022 | -0.9664 | 0.0662 |
| 7 | -0.2977 | -0.9518 | 0.0941 |
| 8 | -0.2637 | -0.8431 | 0.2292 |
| 9 | -0.2997 | -0.9582 | 0.0818 |
| 10 | -0.2962 | -0.9469 | 0.1033 |
| 11 | -0.2911 | -0.9308 | 0.1335 |
| 12 | -0.3051 | -0.9754 | 0.0486 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager W (Sandvik)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.744 | 41.92 | 3 | 0.579 | 54.59 | 4 | 0.684 | 46.82 | 5 | 0.821 | 34.81 | 6 | 0.677 | 47.3 |
| 7 | 0.600 | 53.13 | 8 | 0.467 | 62.13 | 9 | 0.738 | 42.46 | 10 | 0.747 | 41.67 | 11 | 0.636 | 50.4 |
| 12 | 0.660 | 48.73 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.800 | 36.92 | 4 | 0.804 | 36.45 | 5 | 0.789 | 37.93 | 6 | 0.813 | 35.58 | 7 | 0.805 | 36.4 |
| 8 | 0.682 | 46.98 | 9 | 0.847 | 32.12 | 10 | 0.870 | 29.59 | 11 | 0.770 | 39.66 | 12 | 0.819 | 34.9 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.923 | 22.64 | 5 | 0.874 | 29.11 | 6 | 0.912 | 24.20 | 7 | 0.927 | 22.03 | 8 | 0.808 | 36.0 |
| 9 | 0.847 | 32.12 | 10 | 0.817 | 35.20 | 11 | 0.902 | 25.56 | 12 | 0.911 | 24.42 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.868 | 27.40 | 6 | 0.980 | 11.37 | 7 | 0.970 | 14.05 | 8 | 0.843 | 32.54 | 9 | 0.900 | 25.8 |
| 10 | 0.894 | 26.65 | 11 | 0.857 | 31.06 | 12 | 0.981 | 11.23 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.876 | 28.84 | 7 | 0.867 | 29.91 | 8 | 0.768 | 39.79 | 9 | 0.911 | 24.42 | 10 | 0.865 | 30.1 |
| 11 | 0.913 | 24.14 | 12 | 0.868 | 29.74 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.958 | 16.69 | 8 | 0.770 | 39.68 | 9 | 0.915 | 23.83 | 10 | 0.931 | 21.40 | 11 | 0.854 | 31.31 |
| 12 | 0.969 | 14.23 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.851 | 31.67 | 9 | 0.882 | 28.07 | 10 | 0.849 | 31.94 | 11 | 0.831 | 33.77 | 12 | 0.953 | 17.70 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.733 | 42.85 | 10 | 0.711 | 44.69 | 11 | 0.816 | 35.31 | 12 | 0.859 | 30.81 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.965 | 15.30 | 11 | 0.919 | 23.23 | 12 | 0.928 | 21.81 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.891 | 26.95 | 12 | 0.924 | 22.47 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.888 | 27.33 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Ideel Self | 11 Past Self | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard working | not Hard working | 2 | 2 | 2 | 2 | 6 | 4 | 2 | 2 | 4 | 1 | 4 | 3 |
| 2 | Industrious | idle | 2 | 2 | 1 | 3 | 6 | 3 | 2 | 2 | 4 | 1 | 4 | 3 |
| 3 | Efficient | inefficient | 3 | 3 | 4 | 4 | 7 | 4 | 3 | 3 | 4 | 1 | 3 | 3 |
| 4 | Ambitious | Content | 3 | 1 | 1 | 3 | 6 | 3 | 1 | 1 | 3 | 2 | 2 | 3 |
| 5 | Clear thinking | Woolly | 2 | 2 | 4 | 3 | 7 | 4 | 3 | 2 | 4 | 1 | 2 | 2 |
| 6 | Honest | Devious | 2 | 4 | 4 | 4 | 7 | 3 | 4 | 3 | 3 | 1 | 2 | 2 |
| 7 | Capability | not as good as he believes | 2 | 2 | 2 | 3 | 6 | 4 | 4 | 2 | 4 | 1 | 3 | 3 |
| 8 | Dedication | Uncommitted | 2 | 2 | 1 | 3 | 7 | 3 | 2 | 2 | 4 | 1 | 2 | 3 |
| 9 | Intelligent | Slow | 3 | 2 | 2 | 3 | 6 | 3 | 3 | 3 | 4 | 1 | 3 | 3 |
| 10 | Realistic | Unrealistic (pessimistic) | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 1 | 3 | 3 |
| 11 | Humane | Ruthless | 2 | 4 | 5 | 2 | 1 | 3 | 3 | 3 | 2 | 4 | 3 | 2 |
| 12 | Likeable | Unlikeable | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 4 | 1 | 3 | 3 |
| | | | 2 | 3 | 2 | 4 | 6 | 4 | 3 | 2 | 4 | 1 | 3 | 3 |

Completed Grid - Manager X (Sandvik)

## Manager X (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.1366 | -0.4462 | 0.2212 |
| 2 | -0.1802 | -0.5888 | 0.1792 |
| 3 | -0.2045 | -0.6681 | 0.5806 |
| 4 | 0.0659 | 0.2152 | 0.1299 |
| 5 | 0.7905 | 2.5829 | 0.0666 |
| 6 | 0.1060 | 0.3464 | 0.1186 |
| 7 | -0.0399 | -0.1305 | 0.2369 |
| 8 | -0.1738 | -0.5677 | 0.0785 |
| 9 | 0.2040 | 0.6667 | 0.0928 |
| 10 | -0.4394 | -1.4358 | 0.1368 |
| 11 | 0.0057 | 0.0188 | 0.3082 |
| 12 | 0.0022 | 0.0072 | 0.1752 |
| CONSTRUCT | | | |
| 1 | -0.2783 | -0.9089 | 0.1721 |
| 2 | -0.2855 | -0.9327 | 0.1300 |
| 3 | -0.2813 | -0.9192 | 0.1550 |
| 4 | -0.2559 | -0.8360 | 0.3011 |
| 5 | -0.2677 | -0.8748 | 0.2347 |
| 6 | -0.2276 | -0.7438 | 0.4468 |
| 7 | -0.2865 | -0.9426 | 0.1114 |
| 8 | -0.2960 | -0.9672 | 0.0645 |
| 9 | -0.2938 | -0.9598 | 0.0788 |
| 10 | -0.2996 | -0.9787 | 0.0421 |
| 11 | 0.2230 | 0.7287 | 0.4689 |
| 12 | -0.3021 | -0.9872 | 0.0254 |
| 13 | -0.2914 | -0.9521 | 0.0934 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNSTRUCT 1 | | | | | | | | | | | |
| 2 | 0.934 | 20.99 | 3 | 0.797 | 37.16 | 4 | 0.755 | 40.94 | 5 | 0.771 | 39.52 | 6 | 0.524 | 58.39 |
| 7 | 0.865 | 30.15 | 8 | 0.856 | 31.13 | 9 | 0.859 | 30.76 | 10 | 0.879 | 28.44 | 11 | -0.654 | 130.88 |
| 12 | 0.903 | 25.45 | 13 | 0.848 | 32.01 | | | | | | | | | |
| JNSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.763 | 40.24 | 4 | 0.808 | 36.08 | 5 | 0.681 | 47.07 | 6 | 0.528 | 58.16 | 7 | 0.853 | 31.43 |
| 8 | 0.911 | 24.40 | 9 | 0.901 | 25.71 | 10 | 0.907 | 24.88 | 11 | -0.828 | 145.93 | 12 | 0.933 | 21.08 |
| 13 | 0.890 | 27.18 | | | | | | | | | | | | |
| INSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.707 | 45.04 | 5 | 0.949 | 18.47 | 6 | 0.873 | 29.18 | 7 | 0.830 | 33.95 | 8 | 0.856 | 31.14 |
| 9 | 0.873 | 29.21 | 10 | 0.893 | 26.72 | 11 | -0.491 | 119.43 | 12 | 0.883 | 28.04 | 13 | 0.878 | 28.60 |
| NSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.671 | 47.85 | 6 | 0.438 | 64.00 | 7 | 0.701 | 45.52 | 8 | 0.884 | 27.83 | 9 | 0.783 | 38.43 |
| 10 | 0.790 | 37.79 | 11 | -0.761 | 139.54 | 12 | 0.787 | 38.10 | 13 | 0.748 | 41.54 | | | |
| NSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.848 | 31.97 | 7 | 0.845 | 32.31 | 8 | 0.812 | 35.73 | 9 | 0.803 | 36.57 | 10 | 0.844 | 32.45 |
| 11 | -0.350 | 110.51 | 12 | 0.854 | 31.32 | 13 | 0.826 | 34.35 | | | | | | |
| NSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.698 | 45.71 | 8 | 0.693 | 46.16 | 9 | 0.683 | 46.91 | 10 | 0.763 | 40.31 | 11 | -0.220 | 102.69 |
| 12 | 0.720 | 43.97 | 13 | 0.752 | 41.26 | | | | | | | | | |
| NSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.877 | 28.71 | 9 | 0.894 | 26.57 | 10 | 0.943 | 19.44 | 11 | -0.652 | 130.66 | 12 | 0.958 | 16.75 |
| 13 | 0.925 | 22.27 | | | | | | | | | | | | |
| ISTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.934 | 20.96 | 10 | 0.927 | 22.08 | 11 | -0.742 | 137.92 | 12 | 0.948 | 18.56 | 13 | 0.916 | 23.64 |
| STRUCT 9 | | | | | | | | | | | | | | |
| 0 | 0.930 | 21.62 | 11 | -0.795 | 142.63 | 12 | 0.952 | 17.89 | 13 | 0.862 | 30.44 | | | |
| STRUCT 10 | | | | | | | | | | | | | | |
| 1 | -0.706 | 134.95 | 12 | 0.974 | 13.14 | 13 | 0.927 | 22.05 | | | | | | |
| STRUCT 11 | | | | | | | | | | | | | | |
| 2 | -0.725 | 136.45 | 13 | -0.655 | 130.90 | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Ideal Self | 11 Past Self | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING | 2 | 2 | 3 | 2 | 6 | 2 | 5 | 3 | 4 | 1 | 3 | 2 |
| 2 | ACHIEVERS. | FAILURE. | 2 | 1 | 1 | 3 | 4 | 3 | 4 | 3 | 4 | 1 | 1 | 1 |
| 3 | CAPABLE. | UNSUCCESSFUL. | 2 | 1 | 1 | 2 | 4 | 2 | 4 | 3 | 4 | 1 | 1 | 1 |
| 4 | SELF MOTIVATING | & GRASPING. | 1 | 2 | 2 | 3 | 7 | 3 | 6 | 2 | 3 | 1 | 2 | 1 |
| 5 | ABLE | INCOMPETENT. | 2 | 1 | 1 | 1 | 6 | 3 | 5 | 2 | 5 | 1 | 2 | 2 |
| 6 | ADAPTABLE | UNADAPTABLE | 1 | 2 | 2 | 3 | 5 | 3 | 5 | 4 | 5 | 1 | 1 | 1 |
| 7 | [illegible] | INFLEXIBLE | 1 | 2 | 2 | 3 | 6 | 3 | 5 | 4 | 5 | 1 | 2 | 2 |
| 8 | BROADMINDED | NARROW. | 2 | 1 | 1 | 2 | 5 | 3 | 5 | 4 | 5 | 1 | 3 | 2 |
| 9 | [illegible] | SUPERFICIAL | 2 | 1 | 1 | 3 | 6 | 3 | 6 | 2 | 5 | 1 | 3 | 2 |
| 10 | ACCEPTANCE OF WEAKNESS | REFUSES SUCH | 1 | 2 | 2 | 3 | 5 | 3 | 5 | 2 | 4 | 1 | 3 | 1 |
| 11 | RESPECT | DISRESPECT. | 2 | 2 | 2 | 3 | 5 | 3 | 5 | 3 | 4 | 2 | 2 | 2 |
| 12 | POSITIVE | NEGATIVE | 2 | 1 | 1 | 3 | 5 | 4 | 6 | 3 | 4 | 1 | 2 | 1 |
| | [illegible] | [illegible] | 2 | 1 | 1 | 2 | 5 | 1 | 4 | 3 | 4 | 1 | 2 | 2 |

590
Completed Grid - Manager Y (Sandvik)

Manager Y (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.2003 | -0.6722 | 0.1571 |
| 2 | -0.2647 | -0.8881 | 0.0902 |
| 3 | -0.2482 | -0.8327 | 0.1491 |
| 4 | -0.0091 | -0.0304 | 0.1963 |
| 5 | 0.5257 | 1.7643 | 0.1258 |
| 6 | 0.0496 | 0.1665 | 0.1251 |
| 7 | 0.4956 | 1.6632 | 0.0536 |
| 8 | 0.0318 | 0.1067 | 0.2927 |
| 9 | 0.3297 | 1.1064 | 0.1557 |
| 10 | -0.3416 | -1.1465 | 0.0358 |
| 11 | -0.1163 | -0.3904 | 0.2855 |
| 12 | -0.2523 | -0.8467 | 0.0720 |
| CONSTRUCT | | | |
| 1 | -0.2651 | -0.8895 | 0.2088 |
| 2 | -0.2757 | -0.9253 | 0.1439 |
| 3 | -0.2805 | -0.9414 | 0.1137 |
| 4 | -0.2713 | -0.9104 | 0.1712 |
| 5 | -0.2770 | -0.9294 | 0.1361 |
| 6 | -0.2746 | -0.9215 | 0.1509 |
| 7 | -0.2843 | -0.9540 | 0.0899 |
| 8 | -0.2779 | -0.9324 | 0.1305 |
| 9 | -0.2871 | -0.9634 | 0.0719 |
| 10 | -0.2780 | -0.9330 | 0.1295 |
| 11 | -0.2929 | -0.9828 | 0.0340 |
| 12 | -0.2859 | -0.9593 | 0.0797 |
| 13 | -0.2531 | -0.8492 | 0.2789 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.693 | 46.13 | 3 | 0.803 | 36.54 | 4 | 0.881 | 28.26 | 5 | 0.869 | 29.65 | 6 | 0.788 | 37.5 |
| 7 | 0.877 | 28.70 | 8 | 0.827 | 34.17 | 9 | 0.857 | 31.06 | 10 | 0.863 | 30.36 | 11 | 0.861 | 30.9 |
| 12 | 0.763 | 40.25 | 13 | 0.679 | 47.21 | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.954 | 17.35 | 4 | 0.766 | 39.99 | 5 | 0.810 | 35.95 | 6 | 0.926 | 22.21 | 7 | 0.887 | 27.4 |
| 8 | 0.865 | 30.07 | 9 | 0.851 | 31.71 | 10 | 0.794 | 37.43 | 11 | 0.919 | 23.23 | 12 | 0.937 | 20.3 |
| 13 | 0.777 | 39.01 | | | | | | | | | | | | |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.769 | 39.76 | 5 | 0.879 | 28.47 | 6 | 0.930 | 21.56 | 7 | 0.912 | 24.19 | 8 | 0.920 | 23.1 |
| 9 | 0.868 | 29.77 | 10 | 0.783 | 38.47 | 11 | 0.934 | 20.89 | 12 | 0.901 | 25.75 | 13 | 0.720 | 43.9 |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.820 | 34.89 | 6 | 0.810 | 35.94 | 7 | 0.863 | 30.31 | 8 | 0.734 | 42.76 | 9 | 0.876 | 28.8 |
| 10 | 0.927 | 22.03 | 11 | 0.928 | 21.80 | 12 | 0.867 | 29.85 | 13 | 0.772 | 39.42 | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.792 | 37.60 | 7 | 0.865 | 30.10 | 8 | 0.906 | 25.01 | 9 | 0.935 | 20.71 | 10 | 0.829 | 33.9 |
| 11 | 0.902 | 25.59 | 12 | 0.857 | 31.05 | 13 | 0.774 | 39.32 | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.963 | 15.71 | 8 | 0.847 | 32.13 | 9 | 0.800 | 36.82 | 10 | 0.840 | 32.84 | 11 | 0.930 | 21.6 |
| 12 | 0.872 | 29.26 | 13 | 0.629 | 50.99 | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.902 | 25.51 | 9 | 0.871 | 29.38 | 10 | 0.882 | 28.11 | 11 | 0.945 | 19.01 | 12 | 0.868 | 29.7 |
| 13 | 0.690 | 46.41 | | | | | | | | | | | | |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.902 | 25.55 | 10 | 0.812 | 35.71 | 11 | 0.878 | 28.62 | 12 | 0.887 | 27.48 | 13 | 0.792 | 37.62 |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.922 | 22.80 | 11 | 0.934 | 20.94 | 12 | 0.920 | 23.05 | 13 | 0.920 | 23.06 | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.906 | 24.99 | 12 | 0.888 | 27.42 | 13 | 0.844 | 32.47 | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.946 | 18.90 | 13 | 0.796 | 37.30 | | | | | | | | | |

ELEMENTS

Present Self

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard working (1 2 3 4 5 6 7) | not hard working | 1 | 4 | 5 | 2 | 7 | 4 | 4 | 1 | 5 | 1 | 1 | 2 |
| 2 | analytical | emotional | 2 | 2 | 2 | 2 | 4 | 4 | 3 | 2 | 5 | 2 | 3 | 2 |
| 3 | intellectual ability | thick | 3 | 3 | 2 | 3 | 5 | 3 | 3 | 2 | 5 | 3 | 3 | 3 |
| 1 | well balanced. | loner. | 2 | 4 | 3 | 3 | 5 | 2 | 4 | 2 | 3 | 2 | 2 | 2 |
| 5 | considerate | inconsiderate | 1 | 3 | 5 | 2 | 4 | 2 | 6 | 3 | 4 | 1 | 1 | 2 |
| 6 | realistic | unrealistic | 1 | 3 | 3 | 1 | 3 | 2 | 4 | 2 | 4 | 1 | 1 | 1 |
| 7 | broad minded. | narrow | 1 | 1 | 1 | 1 | 4 | 3 | 6 | 1 | 3 | 1 | 1 | 1 |
| 8 | ambitious/conservative | drifting. | 2 | 3 | 3 | 2 | 7 | 2 | 2 | 2 | 6 | 2 | 2 | 1 |
| 9 | Smartly dressed | sloppy. | 2 | 4 | 1 | 3 | 5 | 3 | 5 | 1 | 3 | 1 | 3 | 2 |
| 10 | more responsible, prompt & punctual. | unfulfilled | 1 | 3 | 1 | 3 | 7 | 2 | 3 | 1 | 5 | 1 | 2 | 1 |
| 11 | committed to job | carefree. | 2 | 3 | 2 | 2 | 7 | 3 | 3 | 1 | 5 | 1 | 2 | 2 |
| 12 | positive cynicism (1 2 3 4) | negative cynicism (5 6 7) | 2 | 4 | 2 | 2 | 7 | 4 | 6 | 3 | 5 | 1 | 2 | 2 |

Completed Grid - Manager Z (Sandvik)

## Manager Z (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.2500 | -0.7205 | 0.0851 |
| 2 | 0.0843 | 0.2431 | 0.2945 |
| 3 | -0.0823 | -0.2372 | 0.7100 |
| 4 | -0.1341 | -0.3864 | 0.1637 |
| 5 | 0.6332 | 1.8253 | 0.2522 |
| 6 | 0.0173 | 0.0498 | 0.3068 |
| 7 | 0.3040 | 0.8763 | 0.9006 |
| 8 | -0.2480 | -0.7149 | 0.1805 |
| 9 | 0.4062 | 1.1709 | 0.4409 |
| 10 | -0.3083 | -0.8887 | 0.0993 |
| 11 | -0.1861 | -0.5365 | 0.2019 |
| 12 | -0.2363 | -0.6811 | 0.0548 |
| CONSTRUCT | | | |
| 1 | -0.3075 | -0.8865 | 0.2141 |
| 2 | -0.2614 | -0.7535 | 0.4322 |
| 3 | -0.2688 | -0.7748 | 0.3996 |
| 4 | -0.2911 | -0.8391 | 0.2959 |
| 5 | -0.2311 | -0.6662 | 0.5562 |
| 6 | -0.2779 | -0.8010 | 0.3585 |
| 7 | -0.2702 | -0.7790 | 0.3932 |
| 8 | -0.2921 | -0.8421 | 0.2909 |
| 9 | -0.2737 | -0.7891 | 0.3773 |
| 10 | -0.3202 | -0.9229 | 0.1482 |
| 11 | -0.3266 | -0.9415 | 0.1136 |
| 12 | -0.3271 | -0.9430 | 0.1107 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager Z (Sandvik)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.607 | 52.59 | 3 | 0.568 | 55.40 | 4 | 0.794 | 37.48 | 5 | 0.717 | 44.21 | 6 | 0.785 | 38.2 |
| 7 | 0.599 | 53.18 | 8 | 0.779 | 38.86 | 9 | 0.577 | 54.74 | 10 | 0.753 | 41.18 | 11 | 0.847 | 32.0 |
| 12 | 0.784 | 38.39 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.781 | 38.64 | 4 | 0.293 | 72.98 | 5 | 0.289 | 73.23 | 6 | 0.541 | 57.22 | 7 | 0.626 | 51.2 |
| 8 | 0.694 | 46.08 | 9 | 0.500 | 60.02 | 10 | 0.709 | 44.84 | 11 | 0.767 | 39.89 | 12 | 0.689 | 46.4 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.502 | 59.85 | 5 | 0.138 | 82.08 | 6 | 0.379 | 67.72 | 7 | 0.470 | 61.98 | 8 | 0.826 | 34.3 |
| 9 | 0.580 | 54.58 | 10 | 0.876 | 28.89 | 11 | 0.878 | 28.61 | 12 | 0.638 | 50.36 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.681 | 47.09 | 6 | 0.690 | 46.34 | 7 | 0.588 | 53.99 | 8 | 0.670 | 47.93 | 9 | 0.776 | 39.1 |
| 10 | 0.797 | 37.16 | 11 | 0.748 | 41.62 | 12 | 0.785 | 38.31 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.897 | 26.26 | 7 | 0.670 | 47.90 | 8 | 0.420 | 65.16 | 9 | 0.409 | 65.88 | 10 | 0.412 | 65.7 |
| 11 | 0.435 | 64.12 | 12 | 0.669 | 47.99 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.692 | 46.22 | 8 | 0.606 | 52.67 | 9 | 0.509 | 59.41 | 10 | 0.566 | 55.50 | 11 | 0.601 | 53.0 |
| 12 | 0.786 | 38.23 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.397 | 66.58 | 9 | 0.735 | 42.66 | 10 | 0.585 | 54.22 | 11 | 0.611 | 52.35 | 12 | 0.851 | 31.6 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.444 | 63.66 | 10 | 0.885 | 27.77 | 11 | 0.899 | 25.93 | 12 | 0.691 | 46.28 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.764 | 40.20 | 11 | 0.719 | 44.06 | 12 | 0.818 | 35.09 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.945 | 19.16 | 12 | 0.824 | 34.51 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.850 | 31.84 | | | | | | | | | | | | |

ELEMENTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Ideal Self | 11 Past Self | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard working | not hard working | 2 | 3 | 3 | 2 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 2 |
| 2 | Brevity | Too much detail | 3 | 2 | 2 | 3 | 6 | 2 | 4 | 3 | 4 | 1 | 4 | 2 |
| 3 | Committment | Lack of intent | 2 | 2 | 1 | 3 | 6 | 2 | 3 | 2 | 5 | 1 | 1 | 2 |
| 4 | Understanding | Lack of understanding | 2 | 4 | 4 | 3 | 7 | 3 | 7 | 4 | 2 | 1 | 3 | 2 |
| 5 | Affordability | Distant | 3 | 1 | 3 | 1 | 2 | 4 | 4 | 4 | 1 | 3 | 2 | 2 |
| 6 | Competance | Incompetance | 2 | 3 | 2 | 2 | 6 | 3 | 6 | 3 | 4 | 1 | 2 | 2 |
| 7 | Honesty | Dishonesty | 3 | 5 | 3 | 4 | 4 | 4 | 6 | 5 | 3 | 1 | 2 | 3 |
| 8 | Determination | Lack of determination | 3 | 4 | 1 | 3 | 6 | 1 | 3 | 3 | 6 | 1 | 2 | 2 |
| 9 | Confidence | Lack of confidence | 2 | 2 | 1 | 2 | 3 | 2 | 3 | 2 | 3 | 1 | 3 | 1 |
| 10 | Panic | Not panic | 2 | 6 | 2 | 2 | 4 | 2 | 5 | 5 | 4 | 1 | 4 | 3 |
| 11 | Common sense | Lack of common sense | 2 | 5 | 3 | 4 | 6 | 2 | 5 | 4 | 3 | 1 | 3 | 2 |
| 12 | Control | Lack of control | 3 | 4 | 2 | 3 | 4 | 1 | 6 | 3 | 6 | 2 | 3 | 4 |

1 2 3 4 5 6 7

596
Completed Grid - Manager AA (Sandvik)

## Manager AA (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | 0.1619 | 0.4294 | 0.1140 |
| 2 | -0.1589 | -0.4215 | 0.5947 |
| 3 | 0.2262 | 0.6000 | 0.3125 |
| 4 | 0.0342 | 0.0908 | 0.3102 |
| 5 | -0.5536 | -1.4683 | 0.3669 |
| 6 | 0.2545 | 0.6750 | 0.4380 |
| 7 | -0.3633 | -0.9635 | 0.8179 |
| 8 | -0.0704 | -0.1868 | 0.3883 |
| 9 | -0.2994 | -0.7941 | 0.8396 |
| 10 | 0.5033 | 1.3348 | 0.1110 |
| 11 | 0.0631 | 0.1674 | 0.4750 |
| 12 | 0.2024 | 0.5367 | 0.1966 |
| CONSTRUCT | | | |
| 1 | 0.2816 | 0.7467 | 0.4425 |
| 2 | 0.3197 | 0.8478 | 0.2813 |
| 3 | 0.3073 | 0.8150 | 0.3359 |
| 4 | 0.2863 | 0.7594 | 0.4233 |
| 5 | -0.0932 | -0.2471 | 0.9389 |
| 6 | 0.3381 | 0.8967 | 0.1960 |
| 7 | 0.2377 | 0.6304 | 0.6025 |
| 8 | 0.3254 | 0.8631 | 0.2551 |
| 9 | 0.2990 | 0.7928 | 0.3714 |
| 10 | 0.2788 | 0.7393 | 0.4534 |
| 11 | 0.3316 | 0.8792 | 0.2269 |
| 12 | 0.2823 | 0.7486 | 0.4395 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager AA (Sandvik)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.609 | 52.48 | 3 | 0.670 | 47.95 | 4 | 0.412 | 65.67 | 5 | -0.430 | 115.46 | 6 | 0.515 | 59.0 |
| 7 | 0.270 | 74.32 | 8 | 0.613 | 35.58 | 9 | 0.412 | 65.65 | 10 | 0.547 | 56.84 | 11 | 0.630 | 50.9 |
| 12 | 0.541 | 57.27 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.775 | 39.23 | 4 | 0.645 | 49.87 | 5 | -0.173 | 99.97 | 6 | 0.761 | 40.48 | 7 | 0.293 | 72.9 |
| 8 | 0.741 | 42.23 | 9 | 0.850 | 31.76 | 10 | 0.433 | 64.34 | 11 | 0.675 | 47.52 | 12 | 0.538 | 57.4 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.462 | 62.47 | 5 | -0.348 | 110.35 | 6 | 0.764 | 40.20 | 7 | 0.316 | 71.60 | 8 | 0.889 | 27.2 |
| 9 | 0.622 | 51.54 | 10 | 0.298 | 72.65 | 11 | 0.581 | 54.46 | 12 | 0.598 | 53.30 | | | |
| ONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.207 | 78.07 | 6 | 0.847 | 32.08 | 7 | 0.718 | 44.13 | 8 | 0.377 | 67.87 | 9 | 0.518 | 58.8 |
| 10 | 0.558 | 56.07 | 11 | 0.871 | 29.48 | 12 | 0.369 | 68.35 | | | | | | |
| ONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.098 | 84.40 | 7 | 0.198 | 78.60 | 8 | -0.518 | 121.17 | 9 | -0.147 | 98.47 | 10 | -0.150 | 98.63 |
| 11 | -0.208 | 102.00 | 12 | -0.336 | 109.65 | | | | | | | | | |
| ONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.661 | 48.61 | 8 | 0.659 | 48.79 | 9 | 0.719 | 44.06 | 10 | 0.586 | 54.16 | 11 | 0.761 | 40.45 |
| 12 | 0.644 | 49.94 | | | | | | | | | | | | |
| ONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.327 | 70.91 | 9 | 0.367 | 68.46 | 10 | 0.663 | 48.44 | 11 | 0.734 | 42.80 | 12 | 0.398 | 66.55 |
| JNSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.668 | 48.07 | 10 | 0.551 | 56.54 | 11 | 0.643 | 49.95 | 12 | 0.713 | 44.53 | | | |
| JNSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.565 | 55.63 | 11 | 0.587 | 54.06 | 12 | 0.578 | 54.71 | | | | | | |
| NSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.728 | 43.30 | 12 | 0.634 | 50.68 | | | | | | | | | |
| NSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.497 | 60.17 | | | | | | | | | | | | |

ELEMENTS

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Present Self | | | | | | | | | Ideal Self | Past Self | |
| 1 | HARD WORKING | NOT HARD WORKING | 2 | 1 | 4 | 1 | 2 | 1 | 3 | 4 | 4 | 1 | 2 | 2 |
| 2 | ANALYTICAL MIND | SELF ORIENTATED | 3 | 1 | 4 | 4 | 4 | 2 | 1 | 3 | 2 | 1 | 5 | 3 |
| 3 | BROAD OUTLOOK | NARROW VIEW | 3 | 1 | 4 | 4 | 4 | 3 | 2 | 4 | 5 | 2 | 4 | 3 |
| 4 | COMPLETES A TASK | DOES NOT | 1 | 3 | 4 | 1 | 3 | 1 | 3 | 5 | 1 | 1 | 1 | 2 |
| 5 | DEPTH OF VISION | SUPERFICIAL | 3 | 1 | 4 | 4 | 4 | 3 | 2 | 4 | 5 | 2 | 4 | 3 |
| 6 | GOOD SPEACHMAKER | BAD | 4 | 3 | 4 | 1 | 5 | 1 | 2 | 3 | 5 | 1 | 5 | 3 |
| 7 | ABILITY TO SUMMARISE | CHAOTIC MIND | 3 | 1 | 4 | 4 | 4 | 2 | 1 | 3 | 2 | 1 | 5 | 3 |
| 8 | CUSTOMER ORIENTATED | NOT SO | 1 | 4 | 1 | 1 | 3 | 1 | 1 | 4 | 5 | 1 | 1 | 1 |
| 9 | TO BE BRIEF & TO THE POINT | TOO METICULOUS | 4 | 2 | 1 | 3 | 4 | 3 | 2 | 4 | 4 | 1 | 5 | 4 |
| 10 | TO DELEGATE | NOT TO | 2 | 1 | 4 | 5 | 4 | 3 | 1 | 4 | 2 | 2 | 4 | 3 |
| 11 | TO ENCOURAGE | NOT TO | 3 | 3 | 4 | 3 | 4 | 2 | 1 | 2 | 4 | 1 | 4 | 3 |
| 12 | TO PRAISE | TO ADMONISH | 2 | 4 | 4 | 4 | 4 | 1 | 1 | 2 | 4 | 1 | 3 | 3 |
| | TO LEAD (FROM THE BACK) | IMPOSING IDEAS | 4 | 2 | 4 | 4 | 4 | 1 | 1 | 5 | 4 | 1 | 5 | 4 |

599
Completed Grid - Manager AB (Sandvik)

Manager AB (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | -0.0077 | -0.0199 | 0.2940 |
| 2 | 0.3331 | 0.8654 | 0.9498 |
| 3 | -0.2406 | -0.6251 | 0.7539 |
| 4 | -0.1550 | -0.4025 | 0.7688 |
| 5 | -0.3018 | -0.7840 | 0.1426 |
| 6 | 0.2611 | 0.6782 | 0.3752 |
| 7 | 0.4326 | 1.1237 | 0.2707 |
| 8 | -0.1627 | -0.4226 | 0.9244 |
| 9 | -0.2434 | -0.6324 | 1.1149 |
| 10 | 0.4890 | 1.2703 | 0.1473 |
| 11 | -0.3665 | -0.9521 | 0.3899 |
| 12 | -0.0381 | -0.0989 | 0.1207 |
| CONSTRUCT | | | |
| 1 | 0.1709 | 0.4439 | 0.8030 |
| 2 | 0.3386 | 0.8795 | 0.2265 |
| 3 | 0.3367 | 0.8746 | 0.2352 |
| 4 | 0.0399 | 0.1037 | 0.9892 |
| 5 | 0.3367 | 0.8746 | 0.2352 |
| 6 | 0.2742 | 0.7122 | 0.4928 |
| 7 | 0.3386 | 0.8795 | 0.2265 |
| 8 | 0.0805 | 0.2091 | 0.9563 |
| 9 | 0.2433 | 0.6321 | 0.6005 |
| 10 | 0.2789 | 0.7245 | 0.4752 |
| 11 | 0.3222 | 0.8369 | 0.2995 |
| 12 | 0.2526 | 0.6561 | 0.5696 |
| 13 | 0.3564 | 0.9258 | 0.1428 |

CONSTRUCT 1

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.152 | 81.28 | 3 | 0.542 | 57.17 | 4 | 0.560 | 55.97 | 5 | 0.542 | 57.17 | 6 | 0.514 | 59.0 |
| 7 | 0,152 | 81.28 | 8 | 0.389 | 67.10 | 9 | 0.100 | 84.27 | 10 | 0.071 | 85.91 | 11 | 0.235 | 76.4 |
| 12 | 0.160 | 80.81 | 13 | 0.448 | 63.39 | | | | | | | | | |

CONSTRUCT 2

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 0.692 | 46.24 | 4 | 0.024 | 88.63 | 5 | 0.692 | 46.24 | 6 | 0.482 | 61.19 | 7 | 1.000 | 0.0 |
| 8 | -0.218 | 102.59 | 9 | 0.524 | 58.42 | 10 | 0.856 | 31.15 | 11 | 0.691 | 46.27 | 12 | 0.481 | 61.2 |
| 13 | 0.813 | 35.59 | | | | | | | | | | | | |

CONSTRUCT 3

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.028 | 91.63 | 5 | 1.000 | 0.00 | 6 | 0.498 | 60.14 | 7 | 0.692 | 46.24 | 8 | 0.208 | 78.0 |
| 9 | 0.533 | 57.80 | 10 | 0.685 | 46.75 | 11 | 0.609 | 52.48 | 12 | 0.419 | 65.26 | 13 | 0.737 | 42.5 |

CONSTRUCT 4

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | -0.028 | 91.63 | 6 | 0.159 | 80.87 | 7 | 0.024 | 88.63 | 8 | 0.337 | 70.30 | 9 | -0.206 | 101.8 |
| 10 | 0.107 | 83.86 | 11 | -0.039 | 92.22 | 12 | 0.126 | 82.78 | 13 | 0.189 | 79.12 | | | |

CONSTRUCT 5

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 0.498 | 60.14 | 7 | 0.692 | 46.24 | 8 | 0.208 | 78.01 | 9 | 0.533 | 57.80 | 10 | 0.685 | 46.7 |
| 11 | 0.609 | 52.48 | 12 | 0.419 | 65.26 | 13 | 0.737 | 42.54 | | | | | | |

CONSTRUCT 6

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.482 | 61.19 | 8 | 0.416 | 65.43 | 9 | 0.528 | 58.12 | 10 | 0.092 | 84.70 | 11 | 0.791 | 37.7 |
| 12 | 0.553 | 56.45 | 13 | 0.668 | 48.11 | | | | | | | | | |

CONSTRUCT 7

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | -0.218 | 102.59 | 9 | 0.524 | 58.42 | 10 | 0.856 | 31.15 | 11 | 0.691 | 46.27 | 12 | 0.481 | 61.2 |
| 13 | 0.813 | 35.59 | | | | | | | | | | | | |

CONSTRUCT 8

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 0.225 | 76.97 | 10 | -0.180 | 100.39 | 11 | 0.265 | 74.62 | 12 | 0.413 | 65.60 | 13 | 0.230 | 76.7 |

CONSTRUCT 9

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 0.322 | 71.24 | 11 | 0.446 | 63.53 | 12 | 0.175 | 79.93 | 13 | 0.662 | 48.55 | | | |

CONSTRUCT 10

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 0.425 | 64.85 | 12 | 0.363 | 68.70 | 13 | 0.639 | 50.25 | | | | | | |

CONSTRUCT 11

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 0.855 | 31.26 | 13 | 0.713 | 44.54 | | | | | | | | | |

Completed Grid - Manager AC (Sandvik)

CONSTRUCTS

| POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Present Self | | | | | | | | | Ideal Self | Past Self | |
| 1 HARD WORKING. | NOT HARD WORKING. | 1 | 1 | 1 | 1 | 5 | 1 | 4 | 2 | 4 | 1 | 1 | 2. |
| 2 INSTINCTIVE | SET IDEAS | 2 | 2 | 3 | 2 | 5 | 2 | 4 | 3 | 4 | 2 | 2 | 2. |
| 3 DECISIVE | WILL CONFORMIST | 2 | 2 | 3 | 2 | 6 | 3 | 5 | 3 | 4 | 1 | 3 | 2. |
| 4 SELF MOTIVATED | NEEDS PUSHING | 2 | 2 | 1 | 2 | 6 | 2 | 4 | 2 | 3 | 1 | 2 | 2. |
| 5 KNOWS OF HIS OWN. | YES MAN. | 2 | 3 | 2 | 2 | 6 | 2 | 5 | 3 | 4 | 2 | 3 | 2. |
| 6 INITIATIVE. | STAGED TYPED | 1 | 2 | 2 | 1 | 7 | 2 | 6 | 1 | 4 | 1 | 1 | 2 |
| 7 RESPECT | NO RESPECT | 3 | 2 | 3 | 2 | 7 | 3 | 4 | 4 | 4 | 1 | 4 | 3 |
| 8 ABILITY | LACK ABILITY | 3 | 3 | 3 | 3 | 6 | 4 | 5 | 4 | 5 | 1 | 5 | 3 |
| 9 HONEST | DISHONEST. | 1 | 1 | 1 | 1 | 7 | 1 | 2 | 1 | 3 | 1 | 1 | 1 |
| 10 CONFIDENCE | LACK OF CONFIDENCE | 3 | 3 | 2 | 2 | 5 | 3 | 5 | 4 | 5 | 1 | 5 | 3 |
| 11 CAPABLE | INCAPABLE. | 3 | 3 | 3 | 2 | 7 | 3 | 5 | 4 | 5 | 1 | 4 | 3 |
| 12 RELIABLE. | NOT RELIABLE. | 1 | 1 | 1 | 1 | 7 | 2 | 4 | 3 | 4 | 1 | 1 | 1 |

## Manager AC (Sandvik)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | 0.1745 | 0.5592 | 0.0350 |
| 2 | 0.1587 | 0.5085 | 0.0641 |
| 3 | 0.1532 | 0.4909 | 0.1532 |
| 4 | 0.2282 | 0.7313 | 0.0486 |
| 5 | -0.7139 | -2.2876 | 0.1730 |
| 6 | 0.1076 | 0.3449 | 0.0788 |
| 7 | -0.3476 | -1.1139 | 0.1832 |
| 8 | -0.0130 | -0.0419 | 0.1338 |
| 9 | -0.2752 | -0.8818 | 0.0875 |
| 10 | 0.3603 | 1.1547 | 0.3065 |
| 11 | 0.0243 | 0.0779 | 0.4144 |
| 12 | 0.1428 | 0.4577 | 0.0540 |
| CONSTRUCT | | | |
| 1 | 0.2927 | 0.9378 | 0.1205 |
| 2 | 0.2895 | 0.9278 | 0.1393 |
| 3 | 0.3019 | 0.9673 | 0.0643 |
| 4 | 0.2961 | 0.9489 | 0.0997 |
| 5 | 0.2986 | 0.9568 | 0.0846 |
| 6 | 0.2861 | 0.9167 | 0.1596 |
| 7 | 0.2875 | 0.9211 | 0.1516 |
| 8 | 0.2750 | 0.8811 | 0.2237 |
| 9 | 0.2763 | 0.8853 | 0.2162 |
| 10 | 0.2552 | 0.8177 | 0.3313 |
| 11 | 0.3031 | 0.9712 | 0.0567 |
| 12 | 0.2986 | 0.9568 | 0.0845 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.933 | 21.07 | 3 | 0.870 | 29.50 | 4 | 0.893 | 26.79 | 5 | 0.913 | 24.09 | 6 | 0.923 | 22.63 |
| 7 | 0.781 | 38.66 | 8 | 0.726 | 43.47 | 9 | 0.837 | 33.17 | 10 | 0.714 | 44.43 | 11 | 0.866 | 30.05 |
| 12 | 0.933 | 21.08 | | | | | | | | | | | | |
| ONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.914 | 23.98 | 4 | 0.828 | 34.13 | 5 | 0.894 | 26.57 | 6 | 0.896 | 26.36 | 7 | 0.805 | 36.35 |
| 8 | 0.714 | 44.42 | 9 | 0.842 | 32.63 | 10 | 0.640 | 50.18 | 11 | 0.867 | 29.85 | 12 | 0.934 | 20.86 |
| ONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.886 | 27.66 | 5 | 0.906 | 25.07 | 6 | 0.902 | 25.60 | 7 | 0.901 | 25.65 | 8 | 0.900 | 25.82 |
| 9 | 0.801 | 36.73 | 10 | 0.792 | 37.58 | 11 | 0.945 | 19.06 | 12 | 0.907 | 24.86 | | | |
| ONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.929 | 21.73 | 6 | 0.909 | 24.64 | 7 | 0.851 | 31.66 | 8 | 0.790 | 37.85 | 9 | 0.906 | 25.04 |
| 10 | 0.713 | 44.51 | 11 | 0.889 | 27.31 | 12 | 0.922 | 22.79 | | | | | | |
| ONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.913 | 24.04 | 7 | 0.810 | 35.86 | 8 | 0.795 | 37.34 | 9 | 0.841 | 32.80 | 10 | 0.782 | 38.53 |
| 11 | 0.905 | 25.16 | 12 | 0.916 | 23.60 | | | | | | | | | |
| ONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.734 | 42.76 | 8 | 0.697 | 45.82 | 9 | 0.835 | 33.39 | 10 | 0.622 | 51.54 | 11 | 0.829 | 33.96 |
| 12 | 0.885 | 27.73 | | | | | | | | | | | | |
| ONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.895 | 26.51 | 9 | 0.826 | 34.34 | 10 | 0.807 | 36.18 | 11 | 0.957 | 16.81 | 12 | 0.857 | 31.03 |
| ONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.655 | 49.06 | 10 | 0.935 | 20.72 | 11 | 0.932 | 21.31 | 12 | 0.762 | 40.37 | | | |
| ONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.532 | 57.83 | 11 | 0.815 | 35.40 | 12 | 0.909 | 24.63 | | | | | | |
| ONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.889 | 27.31 | 12 | 0.681 | 47.10 | | | | | | | | | |
| ONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.869 | 27.30 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Ideal Self | 11 Past Self | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard working | Idle. | 3 | 1 | 4 | 3 | 6 | 4 | 2 | 5 | 3 | 2 | 3 | 3 |
| 2 | Sees priorities | Does not see priorities. | 3 | 2 | 4 | 3 | 6 | 2 | 4 | 1 | 5 | 1 | 3 | 4 |
| 3 | Honest | Dishonest. | 2 | 6 | 5 | 3 | 6 | 2 | 3 | 1 | 2 | 1 | 2 | 2 |
| 4 | Intelligent | Unintelligent. | 3 | 3 | 3 | 3 | 7 | 3 | 2 | 1 | 4 | 1 | 3 | 3 |
| 5 | Go-ahead | Stuck in his ways. | 1 | 1 | 3 | 3 | 4 | 1 | 6 | 1 | 6 | 1 | 1 | 2 |
| 6 | Politically adept | Politically inept. | 4 | 2 | 1 | 3 | 6 | 2 | 2 | 3 | 4 | 3 | 5 | 4 |
| 7 | Economic in effort | Wasteful in effort | 4 | 5 | 3 | 2 | 6 | 3 | 6 | 1 | 5 | 1 | 4 | 4 |
| 8 | Ambitious | Unambitious. | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 4 | 1 | 2 | 2 |
| 9 | Real Confidence | Self Confidence. | 4 | 6 | 3 | 3 | 6 | 3 | 4 | 4 | 2 | 1 | 5 | 5 |
| 10 | Liked | Disliked | 4 | 6 | 5 | 3 | 4 | 1 | 4 | 2 | 2 | 1 | 2 | 3 |
| 11 | Cunning | Naive. | 3 | 1 | 1 | 2 | 6 | 2 | 3 | 3 | 5 | 2 | 4 | 4 |
| 12 | Enthusiastic | Unenthusiastic | 1 | 1 | 3 | 3 | 4 | 1 | 1 | 4 | 3 | 1 | 1 | 2 |

Completed Grid - Manager AD (Sandvik).

## Manager AD (Sandvik)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.0580 | -0.1309 | 0.2241 |
| 2 | 0.0180 | 0.0361 | 1.5035 |
| 3 | 0.0381 | 0.0861 | 0.8138 |
| 4 | -0.0545 | -0.1230 | 0.2264 |
| 5 | 0.7005 | 1.5826 | 0.4359 |
| 6 | -0.2009 | -0.4537 | 0.3617 |
| 7 | 0.1020 | 0.2304 | 0.7549 |
| 8 | -0.3109 | -0.7020 | 0.5677 |
| 9 | 0.2734 | 0.6172 | 0.8222 |
| 10 | -0.5252 | -1.1858 | 0.2202 |
| 11 | -0.0265 | -0.0598 | 0.4528 |
| 12 | 0.0455 | 0.1027 | 0.1984 |
| CONSTRUCT | | | |
| 1 | -0.1682 | -0.3798 | 0.8557 |
| 2 | -0.4102 | -0.9261 | 0.1423 |
| 3 | -0.2897 | -0.6542 | 0.5721 |
| 4 | -0.4036 | -0.9114 | 0.1694 |
| 5 | -0.2761 | -0.6235 | 0.6112 |
| 6 | -0.2176 | -0.4912 | 0.7587 |
| 7 | -0.3623 | -0.8180 | 0.3309 |
| 8 | -0.2929 | -0.6615 | 0.5625 |
| 9 | -0.2359 | -0.5327 | 0.7162 |
| 10 | -0.2036 | -0.4598 | 0.7886 |
| 11 | -0.2902 | -0.6552 | 0.5708 |
| 12 | -0.1862 | -0.4205 | 0.8232 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager AD (Sandvik)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | |
| 2 | 0.329 | 70.79 | 3 | 0.085 | 85.15 | 4 | 0.479 | 61.35 | 5 | 0.052 | 87.02 |
| 6 | 0.389 | 67.1 | 7 | -0.078 | 94.46 | 8 | -0.037 | 92.12 | 9 | 0.154 | 81.17 |
| 10 | -0.182 | 100.49 | 11 | 0.479 | 61.3 | 12 | 0.743 | 42.02 | | | |
| CONSTRUCT 2 | | | | | | | | | | | |
| 3 | 0.473 | 61.76 | 4 | 0.813 | 35.62 | 5 | 0.740 | 42.28 | 6 | 0.439 | 63.94 |
| 7 | 0.748 | 41.5 | 8 | 0.658 | 48.86 | 9 | 0.286 | 73.40 | 10 | 0.336 | 70.36 |
| 11 | 0.658 | 48.85 | 12 | 0.376 | 67.9 | | | | | | |
| CONSTRUCT 3 | | | | | | | | | | | |
| 4 | 0.631 | 50.91 | 5 | 0.225 | 77.02 | 6 | -0.063 | 93.60 | 7 | 0.553 | 56.45 |
| 8 | 0.536 | 57.5 | 9 | 0.562 | 55.78 | 10 | 0.818 | 35.10 | 11 | -0.066 | 93.81 |
| 12 | 0.209 | 77.93 | | | | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | |
| 5 | 0.368 | 68.44 | 6 | 0.582 | 54.40 | 7 | 0.652 | 49.31 | 8 | 0.588 | 53.96 |
| 9 | 0.465 | 62.3 | 10 | 0.302 | 72.40 | 11 | 0.615 | 52.02 | 12 | 0.381 | 67.58 |
| CONSTRUCT 5 | | | | | | | | | | | |
| 6 | 0.050 | 87.15 | 7 | 0.574 | 54.98 | 8 | 0.677 | 47.41 | 9 | -0.123 | 97.08 |
| 10 | 0.166 | 80.4 | 11 | 0.429 | 64.61 | 12 | 0.323 | 71.17 | | | |
| CONSTRUCT 6 | | | | | | | | | | | |
| 7 | 0.297 | 72.74 | 8 | -0.106 | 96.09 | 9 | 0.356 | 69.16 | 10 | -0.215 | 102.39 |
| 11 | 0.873 | 29.1 | 12 | 0.245 | 75.83 | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | |
| 8 | 0.642 | 50.09 | 9 | 0.564 | 55.66 | 10 | 0.517 | 58.86 | 11 | 0.480 | 61.29 |
| 12 | -0.113 | 96.5 | | | | | | | | | |
| CONSTRUCT 8 | | | | | | | | | | | |
| 9 | 0.066 | 86.23 | 10 | 0.353 | 69.31 | 11 | 0.131 | 82.49 | 12 | 0.122 | 83.02 |
| CONSTRUCT 9 | | | | | | | | | | | |
| 10 | 0.577 | 54.76 | 11 | 0.271 | 74.28 | 12 | 0.056 | 86.79 | | | |
| CONSTRUCT 10 | | | | | | | | | | | |
| 11 | -0.227 | 103.11 | 12 | 0.043 | 87.54 | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | |
| 12 | 0.381 | 67.58 | | | | | | | | | |

# APPENDIX 9.2

## COMPLETED GRIDS, COMPONENT 1 CONSTRUCT LOADINGS, AND CONSTRUCT CORRELATIONS FOR LANSING BAGNALL MANAGERS

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING | 1 | 1 | 1 | 1 | 5 | 2 | 2 | 1 | 4 | 1 | 1 | 1 |
| 2 | UNDERSTANDING | IMPATIENCE | 3 | 3 | 3 | 2 | 4 | 2 | 4 | 2 | 1 | 1 | 3 | 3 |
| 3 | ENTHUSIASM. | UNWILLING | 1 | 1 | 1 | 1 | 5 | 2 | 2 | 1 | 4 | 1 | 2 | 1 |
| 4 | COMPASSIONATE | RUTHLESS | 2 | 3 | 3 | 2 | 4 | 3 | 6 | 2 | 2 | 1 | 1 | 2 |
| 5 | DILIGENCE | NOT DILIGENT | 1 | 1 | 1 | 1 | 4 | 2 | 2 | 1 | 4 | 1 | 1 | 1 |
| 6 | AMBITION | LACK of AMBITION | 2 | 1 | 1 | 2 | 7 | 3 | 1 | 2 | 4 | 1 | 2 | 1 |
| 7 | DESIRE TO IMPROVE THINGS. | COMPLACENCY | 1 | 1 | 2 | 2 | 7 | 2 | 2 | 1 | 4 | 1 | 2 | 1 |
| 8 | DEDICATION | LACK of DEDICATION | 1 | 1 | 1 | 1 | 5 | 2 | 2 | 1 | 4 | 1 | 1 | 1 |
| 9 | PROPER MANAGEMENT of PEOPLE AND SITUATIONS. | ILL MANAGEMENT of PEOPLE OR SITUATIONS | 2 | 3 | 3 | 2 | 4 | 3 | 3 | 2 | 6 | 1 | 1 | 1 |
| 10 | FAIRNESS | THOUGHTLESS MANAGEMENT | 1 | 2 | 2 | 1 | 4 | 1 | 3 | 1 | 4 | 1 | 1 | 1 |
| 11 | COURAGE TO IMPOSE UNPOPULAR DECISIONS | TAKES SOFT OPTION | 1 | 1 | 1 | 2 | 4 | 1 | 1 | 1 | 5 | 1 | 2 | 1 |
| 12 | PARTS SELF ESTEEM SUBORDINATES. | FAILURE TO RECOGNISE SUBORDINATES NEEDS. | 1 | 2 | 3 | 2 | 4 | 2 | 4 | 1 | 4 | 1 | 1 | 1 |

1 2 3 4 5 6 7

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Completed Grid - Manager A (Lansing)

Manager A (Lansing)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | -0.1660 | -0.5483 | 0.0590 |
| 2 | -0.1215 | -0.3582 | 0.1418 |
| 3 | -0.0797 | -0.2349 | 0.2131 |
| 4 | -0.1280 | -0.3774 | 0.0927 |
| 5 | 0.6848 | 2.0189 | 0.3085 |
| 6 | 0.0030 | 0.0088 | 0.1531 |
| 7 | 0.1146 | 0.3378 | 1.0020 |
| 8 | -0.1919 | -0.5656 | 0.0549 |
| 9 | 0.5252 | 1.5483 | 0.6688 |
| 10 | -0.2459 | -0.7250 | 0.2897 |
| 11 | -0.1516 | -0.4469 | 0.2598 |
| 12 | -0.2230 | -0.6574 | 0.0657 |
| CONSTRUCT | | | |
| 1 | -0.3341 | -0.9850 | 0.0298 |
| 2 | -0.0573 | -0.1688 | 0.9715 |
| 3 | -0.3274 | -0.9653 | 0.0682 |
| 4 | -0.1504 | -0.4432 | 0.8035 |
| 5 | -0.3319 | -0.9785 | 0.0425 |
| 6 | -0.2917 | -0.8600 | 0.2604 |
| 7 | -0.3182 | -0.9380 | 0.1201 |
| 8 | -0.3341 | -0.9850 | 0.0298 |
| 9 | -0.2839 | -0.8371 | 0.2993 |
| 10 | -0.3135 | -0.9242 | 0.1459 |
| 11 | -0.2921 | -0.8612 | 0.2583 |
| 12 | -0.2879 | -0.8488 | 0.2795 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager A (Lansing)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JNSTRUCT 1 | | | | | | | | | | | | |
| 2 | 0.118 | 83.24 | 3 | 0.977 | 12.27 | 4 | 0.377 | 67.88 | 5 | 0.986 | 9.45 | 6 | 0.902 | 25.60 |
| 7 | 0.938 | 20.23 | 8 | 1.000 | 0.00 | 9 | 0.778 | 38.96 | 10 | 0.870 | 29.52 | 11 | 0.852 | 31.59 |
| 12 | 0.767 | 39.95 | | | | | | | | | | | | |
| JNSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.148 | 81.50 | 4 | 0.656 | 48.98 | 5 | 0.026 | 88.49 | 6 | 0.116 | 83.32 | 7 | 0.252 | 75.40 |
| 8 | 0.118 | 83.24 | 9 | -0.068 | 93.93 | 10 | 0.242 | 75.99 | 11 | -0.151 | 98.70 | 12 | 0.276 | 73.98 |
| JNSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.304 | 72.30 | 5 | 0.962 | 15.91 | 6 | 0.905 | 25.11 | 7 | 0.946 | 18.97 | 8 | 0.977 | 12.27 |
| 9 | 0.714 | 44.40 | 10 | 0.836 | 33.33 | 11 | 0.877 | 28.73 | 12 | 0.715 | 44.33 | | | |
| INSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.362 | 68.80 | 6 | 0.159 | 80.86 | 7 | 0.333 | 70.56 | 8 | 0.377 | 67.88 | 9 | 0.407 | 65.97 |
| 10 | 0.562 | 55.83 | 11 | -0.012 | 90.70 | 12 | 0.720 | 43.98 | | | | | | |
| NSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.848 | 32.03 | 7 | 0.885 | 27.74 | 8 | 0.986 | 9.45 | 9 | 0.836 | 33.24 | 10 | 0.880 | 28.41 |
| 11 | 0.870 | 29.50 | 12 | 0.787 | 38.10 | | | | | | | | | |
| NSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.928 | 21.93 | 8 | 0.902 | 25.60 | 9 | 0.580 | 54.55 | 10 | 0.626 | 51.25 | 11 | 0.788 | 38.01 |
| 12 | 0.508 | 59.46 | | | | | | | | | | | | |
| NSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.938 | 20.23 | 9 | 0.642 | 50.06 | 10 | 0.798 | 37.03 | 11 | 0.823 | 34.57 | 12 | 0.724 | 43.58 |
| NSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.778 | 38.96 | 10 | 0.870 | 29.52 | 11 | 0.852 | 31.59 | 12 | 0.767 | 39.95 | | | |
| NSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.853 | 31.44 | 11 | 0.731 | 43.02 | 12 | 0.837 | 33.22 | | | | | | |
| NSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.758 | 40.72 | 12 | 0.922 | 22.83 | | | | | | | | | |
| NSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.608 | 52.55 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Ideal Self | 11 Past Self | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hardworking | Not Hard Working. | 2 | 4 | 4 | 2 | 5 | 3 | 4 | 2 | 4 | 1 | 2 | 3 |
| 2 | Open-minded. | Opinimated. | 3 | 6 | 6 | 3 | 3 | 4 | 3 | 3 | 3 | 1 | 4 | 5 |
| 3 | Self-motivated. | Drifter. | 2 | 2 | 3 | 3 | 6 | 2 | 4 | 2 | 3 | 1 | 3 | 3 |
| 4 | Deep-thinking. | Shallow thinking. | 3 | 4 | 3 | 4 | 6 | 3 | 5 | 3 | 4 | 1 | 4 | 2 |
| 5 | Shepherd | Sheep. | 3 | 1 | 3 | 3 | 6 | 3 | 4 | 3 | 4 | 1 | 4 | 3 |
| 6 | Progressive | Conservative | 3 | 2 | 4 | 4 | 5 | 3 | 5 | 3 | 4 | 2 | 5 | 3 |
| 7 | Alert | Slow. | 3 | 2 | 2 | 3 | 5 | 3 | 4 | 2 | 4 | 2 | 4 | 3 |
| 8 | Concerned about people | Unconcerned about people | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 2 | 6 | 1 |
| 9 | Show authority. | Lack authority. | 3 | 1 | 1 | 5 | 6 | 2 | 4 | 3 | 4 | 2 | 5 | 2 |
| 10 | Motivater | Fails to lead. | 3 | 2 | 3 | 4 | 5 | 3 | 4 | 3 | 3 | 1 | 5 | 3 |
| 11 | Communicates well | Communicates badly. | 5 | 5 | 5 | 4 | 4 | 3 | 4 | 3 | 5 | 1 | 5 | 3 |
| 12 | INSPIRING | Dull. | 4 | 3 | 3 | 4 | 5 | 3 | 4 | 3 | 4 | 2 | 5 | 3 |

Completed Grid - Manager B (Lansing)

Manager B (Lansing)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT: | VECTOR | LOADING | RESIDUAL |
| 1 | 0.0679 | 0.1845 | 0.2378 |
| 2 | 0.2273 | 0.6173 | 0.9046 |
| 3 | 0.0677 | 0.1839 | 0.6906 |
| 4 | -0.0791 | -0.2149 | 0.2535 |
| 5 | -0.5832 | -1.5838 | 0.2834 |
| 6 | 0.1306 | 0.3547 | 0.1127 |
| 7 | -0.2698 | -0.7327 | 0.1059 |
| 8 | 0.1661 | 0.4512 | 0.1741 |
| 9 | -0.1460 | -0.3966 | 0.1966 |
| 10 | 0.5620 | 1.5262 | 0.6114 |
| 11 | -0.3246 | -0.8816 | 0.5628 |
| 12 | 0.1811 | 0.4919 | 0.4906 |
| CONSTRUCT | | | |
| 1 | 0.2063 | 0.5604 | 0.6860 |
| 2 | 0.0055 | 0.0148 | 0.9998 |
| 3 | 0.3272 | 0.8887 | 0.2103 |
| 4 | 0.3309 | 0.8986 | 0.1926 |
| 5 | 0.3378 | 0.9174 | 0.1582 |
| 6 | 0.3383 | 0.9187 | 0.1559 |
| 7 | 0.3265 | 0.8868 | 0.2136 |
| 8 | 0.1928 | 0.5237 | 0.7257 |
| 9 | 0.2999 | 0.8145 | 0.3365 |
| 10 | 0.3429 | 0.9313 | 0.1326 |
| 11 | 0.2034 | 0.5523 | 0.6950 |
| 12 | 0.3458 | 0.9392 | 0.1178 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager B (Lansing)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | |
| 2 | 0.473 | 61.80 | 3 | 0.714 | 44.46 | 4 | 0.688 | 46.51 | 5 | 0.507 | 59.51 | 6 | 0.417 | 65.33 |
| 7 | 0.454 | 63.00 | 8 | 0.182 | 79.52 | 9 | 0.092 | 84.73 | 10 | 0.331 | 70.66 | 11 | 0.486 | 60.90 |
| 12 | 0.335 | 70.43 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.067 | 86.18 | 4 | 0.096 | 84.47 | 5 | -0.111 | 96.34 | 6 | -0.039 | 92.23 | 7 | -0.233 | 103.48 |
| 8 | 0.204 | 78.24 | 9 | -0.476 | 118.40 | 10 | 0.056 | 86.81 | 11 | 0.545 | 56.99 | 12 | -0.047 | 92.69 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.819 | 35.04 | 5 | 0.876 | 28.81 | 6 | 0.805 | 36.35 | 7 | 0.804 | 36.48 | 8 | 0.231 | 76.66 |
| 9 | 0.670 | 47.95 | 10 | 0.788 | 38.02 | 11 | 0.337 | 70.28 | 12 | 0.730 | 43.08 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.724 | 43.59 | 6 | 0.734 | 42.77 | 7 | 0.729 | 43.19 | 8 | 0.556 | 56.19 | 9 | 0.674 | 47.63 |
| 10 | 0.760 | 40.56 | 11 | 0.586 | 54.15 | 12 | 0.807 | 36.23 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.868 | 29.78 | 7 | 0.876 | 28.85 | 8 | 0.328 | 70.84 | 9 | 0.773 | 39.39 | 10 | 0.866 | 29.99 |
| 11 | 0.338 | 70.24 | 12 | 0.818 | 35.11 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.793 | 37.53 | 8 | 0.506 | 59.59 | 9 | 0.758 | 40.73 | 10 | 0.903 | 25.45 | 11 | 0.445 | 63.55 |
| 12 | 0.831 | 33.81 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.257 | 75.11 | 9 | 0.824 | 34.49 | 10 | 0.782 | 38.58 | 11 | 0.300 | 72.51 | 12 | 0.853 | 31.45 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.312 | 71.84 | 10 | 0.546 | 56.90 | 11 | 0.501 | 59.92 | 12 | 0.528 | 58.13 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.802 | 36.63 | 11 | 0.186 | 79.28 | 12 | 0.851 | 31.73 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.467 | 62.16 | 12 | 0.909 | 24.59 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.617 | 51.87 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | Pri 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING | 1 | 1 | 1 | 1 | 7 | 2 | 4 | 1 | 3 | 1 | 1 | 1 |
| 2 | SELF MOTIVATED | LACKS MOTIVATION | 1 | 1 | 1 | 1 | 6 | 1 | 5 | 1 | 4 | 1 | 1 | 2 |
| 3 | STRONG CHARACTER | WEAK CHARACTER | 1 | 2 | 2 | 2 | 7 | 2 | 6 | 1 | 5 | 1 | 1 | 1 |
| 4 | RELIABLE | UNRELIABLE | 1 | 2 | 2 | 2 | 7 | 1 | 7 | 2 | 4 | 1 | 1 | 1 |
| 5 | TRUSTWORTHY | NOT TRUSTED | 1 | 1 | 1 | 1 | 6 | 1 | 6 | 1 | 4 | 1 | 1 | 2 |
| 6 | WIDE SCOPE | LIMITED ABILITY | 1 | 1 | 1 | 1 | 7 | 2 | 5 | 1 | 5 | 1 | 1 | 2 |
| 7 | BRIEF | VERBOSE | 1 | 4 | 5 | 4 | 3 | 1 | 7 | 4 | 2 | 3 | 1 | 2 |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |

1 2 3 4 5 6 7

Completed Grid - Manager C. (Lansing)

## Manager C (Lansing)

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| | | COMPONENT 1 | |
| 1 | -0.2134 | -0.5167 | 0.0713 |
| 2 | -0.1343 | -0.3251 | 0.0558 |
| 3 | -0.1232 | -0.2984 | 0.1492 |
| 4 | -0.1343 | -0.3251 | 0.0558 |
| 5 | 0.6502 | 1.5743 | 0.1176 |
| 6 | -0.1399 | -0.3388 | 0.1203 |
| 7 | 0.5170 | 1.2518 | 0.2514 |
| 8 | -0.1578 | -0.3820 | 0.0581 |
| 9 | 0.2660 | 0.6439 | 0.1173 |
| 10 | -0.1913 | -0.4633 | 0.0063 |
| 11 | -0.2134 | -0.5167 | 0.0713 |
| 12 | -0.1255 | -0.3040 | 0.0637 |
| CONSTRUCT | | | |
| 1 | -0.3916 | -0.9481 | 0.1012 |
| 2 | -0.4073 | -0.9861 | 0.0276 |
| 3 | -0.4062 | -0.9836 | 0.0325 |
| 4 | -0.4042 | -0.9786 | 0.0424 |
| 5 | -0.4068 | -0.9849 | 0.0299 |
| 6 | -0.4007 | -0.9701 | 0.0589 |
| 7 | -0.1624 | -0.3931 | 0.8455 |

CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager C (Lansing)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.934 | 20.86 | 3 | 0.932 | 21.24 | 4 | 0.898 | 26.17 | 5 | 0.908 | 24.73 | 6 | 0.953 | 17.5 |
| 7 | 0.187 | 79.23 | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | |
| 3 | 0.955 | 17.20 | 4 | 0.942 | 19.60 | 5 | 0.992 | 7.20 | 6 | 0.983 | 10.57 | 7 | 0.296 | 72.8 |
| CONSTRUCT 3 | | | | | | | | | | | | | |
| 4 | 0.963 | 15.66 | 5 | 0.951 | 18.04 | 6 | 0.958 | 16.75 | 7 | 0.379 | 67.75 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | |
| 5 | 0.956 | 16.99 | 6 | 0.903 | 25.49 | 7 | 0.542 | 57.16 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | |
| 6 | 0.962 | 15.91 | 7 | 0.369 | 68.32 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | |
| 7 | 0.181 | 79.58 | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING | 2 | 2 | 2 | 1 | 7 | 2 | 7 | 2 | 3 | 1 | 2 | 2 |
| 2 | AGRESSIVE | PLACID | 2 | 3 | 1 | 2 | 4 | 5 | 1 | 2 | 3 | 2 | 1 | 3 |
| 3 | CONSTRUCTIVE/ACTIVE. | RESENTFUL. | 2 | 2 | 1 | 2 | 6 | 3 | 7 | 1 | 4 | 1 | 2 | 2 |
| 4 | IMAGINATIVE | DISRUPTIVE. | 1 | 2 | 1 | 1 | 6 | 2 | 6 | 1 | 3 | 1 | 2 | 3 |
| 5 | EXTROVERT. | INTROVERT. | 3 | 3 | 1 | 3 | 6 | 4 | 4 | 1 | 5 | 3 | 3 | 3 |
| 6 | TEAM EFFORT | - LACKS OBJECTIVE | 1 | 1 | 1 | 1 | 6 | 2 | 7 | 2 | 5 | 1 | 1 | 2 |
| 7 | STRAIGHT FORWARD | DEVIOUS | 1 | 1 | 1 | 1 | 6 | 2 | 7 | 1 | 4 | 1 | 1 | 2 |
| 8 | COMPATIBLE | INCOMPATIBLE. | 2 | 2 | 3 | 2 | 6 | 2 | 7 | 3 | 5 | 2 | 2 | 3 |
| 9 | ENTHUSIASTIC | NOT ENTHUSIASTIC. | 1 | 1 | 1 | 1 | 6 | 2 | 7 | 1 | 3 | 1 | 1 | 1 |
| 10 | DIRECTION) | HIS DIRECTION. | 2 | 2 | 1 | 1 | 6 | 2 | 7 | 2 | 2 | 1 | 1 | 2 |
| 11 | FULL COMMITMENT | COMMITMENT | 1 | 1 | 1 | 1 | 6 | 2 | 7 | 1 | 3 | 1 | 1 | 1 |
| 12 | PURPOSE | LACK OF PURPOSE. | 2 | 2 | 1 | 2 | 7 | 3 | 7 | 1 | 3 | 1 | 2 | 2 |

1 2 3 4 5 6 7

Completed Grid - Manager D (Lansing)

## Manager D (Lansing)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.1576 | -0.4995 | 0.0371 |
| 2 | -0.1372 | -0.4349 | 0.0577 |
| 3 | -0.2209 | -0.7002 | 0.2393 |
| 4 | -0.1863 | -0.5904 | 0.0347 |
| 5 | 0.5758 | 1.8248 | 0.1289 |
| 6 | -0.0285 | -0.0902 | 0.4890 |
| 7 | 0.6316 | 2.0017 | 0.3302 |
| 8 | -0.1887 | -0.5981 | 0.1830 |
| 9 | 0.1663 | 0.5271 | 0.2230 |
| 10 | -0.2154 | -0.6826 | 0.0284 |
| 11 | -0.1607 | -0.5094 | 0.1286 |
| 12 | -0.0783 | -0.2483 | 0.0752 |
| CONSTRUCT | | | |
| 1 | -0.3064 | -0.9712 | 0.0568 |
| 2 | -0.0588 | -0.1865 | 0.9652 |
| 3 | -0.3102 | -0.9831 | 0.0335 |
| 4 | -0.3057 | -0.9688 | 0.0615 |
| 5 | -0.2329 | -0.7383 | 0.4550 |
| 6 | -0.3050 | -0.9667 | 0.0654 |
| 7 | -0.3130 | -0.9919 | 0.0161 |
| 8 | -0.2950 | -0.9350 | 0.1258 |
| 9 | -0.3122 | -0.9893 | 0.0212 |
| 10 | -0.3007 | -0.9532 | 0.0915 |
| 11 | -0.3122 | -0.9893 | 0.0212 |
| 12 | -0.3089 | -0.9789 | 0.0418 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager D (Lansing)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.080 | 85.39 | 3 | 0.933 | 21.07 | 4 | 0.950 | 18.22 | 5 | 0.616 | 52.00 | 6 | 0.919 | 23.22 |
| 7 | 0.950 | 18.15 | 8 | 0.923 | 22.58 | 9 | 0.970 | 14.02 | 10 | 0.971 | 13.89 | 11 | 0.970 | 14.02 |
| 12 | 0.958 | 16.69 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.196 | 78.67 | 4 | 0.197 | 78.65 | 5 | 0.554 | 56.35 | 6 | 0.150 | 81.36 | 7 | 0.148 | 81.49 |
| 8 | -0.010 | 90.60 | 9 | 0.109 | 83.73 | 10 | 0.108 | 83.79 | 11 | 0.109 | 83.73 | 12 | 0.219 | 77.36 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.943 | 19.40 | 5 | 0.775 | 39.23 | 6 | 0.940 | 19.88 | 7 | 0.973 | 13.44 | 8 | 0.887 | 27.47 |
| 9 | 0.971 | 13.73 | 10 | 0.922 | 22.82 | 11 | 0.971 | 13.73 | 12 | 0.980 | 11.46 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.724 | 43.61 | 6 | 0.916 | 23.71 | 7 | 0.956 | 17.12 | 8 | 0.893 | 26.76 | 9 | 0.938 | 20.27 |
| 10 | 0.927 | 21.96 | 11 | 0.938 | 20.27 | 12 | 0.954 | 17.51 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.684 | 46.82 | 7 | 0.715 | 44.37 | 8 | 0.552 | 56.47 | 9 | 0.677 | 47.40 | 10 | 0.574 | 54.94 |
| 11 | 0.677 | 47.40 | 12 | 0.755 | 40.94 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.984 | 10.21 | 8 | 0.974 | 13.08 | 9 | 0.955 | 17.24 | 10 | 0.891 | 26.99 | 11 | 0.955 | 17.24 |
| 12 | 0.900 | 25.87 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.960 | 16.22 | 9 | 0.983 | 10.44 | 10 | 0.929 | 21.68 | 11 | 0.983 | 10.44 | 12 | 0.951 | 18.09 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.933 | 21.02 | 10 | 0.880 | 28.32 | 11 | 0.933 | 21.02 | 12 | 0.855 | 31.26 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.957 | 16.93 | 11 | 1.000 | 0.00 | 12 | 0.970 | 14.00 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.957 | 16.93 | 12 | 0.950 | 18.11 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.970 | 14.00 | | | | | | | | | | | | |

ELEMENTS

ONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Ideel Self | 11 Past Self | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARDWORKER 1 2 3 4 | NOT HARDWORKING 5 7 | 2 | 2 | 2 | 3 | 6 | 2 | 4 | 4 | 4 | 1 | 2 | 2 |
| 2 | TENACIT-I | NOT TENACIOUS | 3 | 3 | 3 | 4 | 7 | 3 | 1 | 4 | 6 | 3 | 3 | 2 |
| 3 | CONSTRUCTIVE | NEGATIVE | 2 | 2 | 1 | 2 | 6 | 3 | 3 | 2 | 6 | 1 | 3 | 1 |
| 4 | SUBJECTIVE | ILLOGICAL | 2 | 2 | 2 | 3 | 5 | 2 | 4 | 3 | 5 | 1 | 2 | 2 |
| 5 | CAPABLE | LACKING IN MANY BASI | 1 | 1 | 1 | 2 | 4 | 2 | 3 | 3 | 6 | 1 | 3 | 1 |
| 6 | SELF CONFIDENCE | LACKS | 2 | 2 | 1 | 3 | 4 | 3 | 3 | 3 | 3 | 1 | 2 | 1 |
| 7 | TASK MOTIVATED | 11 | 1 | 2 | 2 | 3 | 7 | 3 | 3 | 3 | 5 | 1 | 2 | 2 |
| 8 | EXPERIENCE | 11 | 2 | 2 | 1 | 3 | 4 | 3 | 4 | 3 | 4 | 1 | 3 | 3 |
| 9 | ACADEMIC ABILITY | WRITTEN COMMUN | 3 | 3 | 1 | 5 | 7 | 3 | 5 | 5 | 7 | 1 | 4 | 3 |
| 10 | SELF MOTIVATED | BEG MOTIVATIO | 1 | 1 | 1 | 2 | 7 | 1 | 3 | 2 | 6 | 1 | 2 | 2 |
| 11 | RESPONSIVE | UNDERSTANDING | 2 | 2 | 1 | 2 | 7 | 2 | 3 | 2 | 4 | 1 | 2 | 3 |
| 12 | CONFIDENT IN MAN MANAGEMENT | NOT CONFIDENT | 2 | 2 | 1 | 4 | 6 | 3 | 3 | 4 | 5 | 1 | 2 | 2 |

621
Completed Grid - Manager E (Lansing)

## Manager E (Lansing)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | 0.1948 | 0.6112 | 0.0479 |
| 2 | 0.1776 | 0.5571 | 0.0269 |
| 3 | 0.3104 | 0.9740 | 0.1793 |
| 4 | -0.0469 | -0.1471 | 0.1437 |
| 5 | -0.6388 | -2.0041 | 0.2437 |
| 6 | 0.0564 | 0.1770 | 0.1716 |
| 7 | -0.1179 | -0.3698 | 0.4586 |
| 8 | -0.0845 | -0.2650 | 0.1691 |
| 9 | -0.4741 | -1.4874 | 0.2431 |
| 10 | 0.3707 | 1.1629 | 0.1198 |
| 11 | 0.0729 | 0.2286 | 0.1238 |
| 12 | 0.1794 | 0.5627 | 0.2299 |
| CONSTRUCT | | | |
| 1 | 0.2962 | 0.9293 | 0.1364 |
| 2 | 0.2399 | 0.7525 | 0.4337 |
| 3 | 0.2956 | 0.9274 | 0.1399 |
| 4 | 0.3042 | 0.9542 | 0.0894 |
| 5 | 0.2800 | 0.8785 | 0.2283 |
| 6 | 0.2738 | 0.8589 | 0.2624 |
| 7 | 0.3044 | 0.9551 | 0.0878 |
| 8 | 0.2701 | 0.8473 | 0.2822 |
| 9 | 0.3036 | 0.9524 | 0.0929 |
| 10 | 0.3005 | 0.9427 | 0.1112 |
| 11 | 0.2823 | 0.8855 | 0.2158 |
| 12 | 0.3061 | 0.9604 | 0.0776 |

CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager E (Lansing)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.638 | 50.33 | 3 | 0.764 | 40.16 | 4 | 0.930 | 21.51 | 5 | 0.735 | 42.69 | 6 | 0.833 | 33.5 |
| 7 | 0.904 | 25.37 | 8 | 0.767 | 39.89 | 9 | 0.880 | 28.36 | 10 | 0.860 | 30.67 | 11 | 0.846 | 32.2 |
| 12 | 0.904 | 25.30 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.747 | 41.65 | 4 | 0.630 | 50.93 | 5 | 0.647 | 49.66 | 6 | 0.569 | 55.35 | 7 | 0.792 | 37.6 |
| 8 | 0.345 | 69.83 | 9 | 0.638 | 50.37 | 10 | 0.762 | 40.36 | 11 | 0.673 | 47.67 | 12 | 0.770 | 39.6 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.860 | 30.68 | 5 | 0.892 | 26.85 | 6 | 0.768 | 39.84 | 7 | 0.881 | 28.24 | 8 | 0.750 | 41.4 |
| 9 | 0.846 | 32.25 | 10 | 0.905 | 25.17 | 11 | 0.824 | 34.49 | 12 | 0.832 | 33.71 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.861 | 30.54 | 6 | 0.788 | 37.96 | 7 | 0.894 | 26.58 | 8 | 0.819 | 34.99 | 9 | 0.920 | 23.0 |
| 10 | 0.917 | 23.53 | 11 | 0.816 | 35.29 | 12 | 0.891 | 26.99 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.692 | 46.23 | 7 | 0.780 | 38.74 | 8 | 0.775 | 39.23 | 9 | 0.867 | 29.88 | 10 | 0.848 | 32.0 |
| 11 | 0.636 | 50.49 | 12 | 0.796 | 37.22 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.798 | 37.06 | 8 | 0.787 | 38.06 | 9 | 0.857 | 31.03 | 10 | 0.655 | 49.09 | 11 | 0.664 | 48.37 |
| 12 | 0.905 | 25.19 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.736 | 42.59 | 9 | 0.836 | 33.24 | 10 | 0.924 | 22.54 | 11 | 0.898 | 26.13 | 12 | 0.919 | 23.21 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.905 | 25.18 | 10 | 0.735 | 42.66 | 11 | 0.731 | 43.07 | 12 | 0.812 | 35.68 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.852 | 31.55 | 11 | 0.783 | 38.46 | 12 | 0.939 | 20.11 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.918 | 23.37 | 12 | 0.846 | 32.22 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.809 | 35.96 | | | | | | | | | | | | |

Manager F (Lansing) failed
to complete a grid.

ELEMENTS

ONSTRUCTS

| | POSITIVE | NEGATIVE | Present s... 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARDWORKING | NOT HARDWORKING | 1 | 1 | 2 | 2 | 5 | 3 | 6 | 3 | 4 | 1 | 2 | 2 |
| 2 | LEADS FROM FRONT | DOSENT LEAD FROM FRONT | 2 | 1 | 4 | 3 | 4 | 2 | 4 | 6 | 4 | 1 | 3 | 2 |
| 3 | LOTS OF DRIVE | LACKS DRIVE | 1 | 1 | 2 | 1 | 5 | 2 | 4 | 1 | 4 | 1 | 1 | 1 |
| 4 | ORGANISED | UNORGANISED | 3 | 2 | 2 | 4 | 4 | 2 | 4 | 1 | 3 | 1 | 4 | 3 |
| 5 | SHARP MIND | DULL | 2 | 1 | 1 | 2 | 3 | 2 | 3 | 1 | 4 | 1 | 1 | 2 |
| 6 | GOOD COMMICATION | CANNOT COMMUNICATE | 2 | 1 | 3 | 4 | 2 | 2 | 3 | 1 | 2 | 1 | 3 | 2 |
| 7 | GOOD ENGINEER | BAD ENGINEER | 1 | 3 | 2 | 3 | 3 | 4 | 4 | 1 | 3 | 1 | 1 | 1 |
| 8 | TRUSTWORTHY | UNTRUSTWORTHY | 1 | 1 | 1 | 3 | 3 | 1 | 3 | 1 | 2 | 1 | 1 | 1 |
| 9 | PRESENTS CASE WELL | UNABLE TO PRESENT CASE | 2 | 1 | 2 | 4 | 3 | 2 | 2 | 1 | 2 | 1 | 3 | 2 |
| 10 | GAINING ALL THE KNOWLEDGE I CAN | LACK KNOWLEDGE | 2 | 2 | 1 | 3 | 3 | 4 | 4 | 1 | 3 | 1 | 3 | 2 |
| 11 | BROADER EXPERIENCE | LACK OF EXPERIENCE | 2 | 1 | 1 | 3 | 3 | 4 | 3 | 3 | 4 | 1 | 3 | 2 |
| 12 | GOOD DETERMINATION | LACK OF DETERMINATION | 1 | 1 | 2 | 1 | 3 | 1 | 4 | 3 | 4 | 1 | 1 | 1 |

625

Completed Grid - Manager G (Lansing)

## Manager G (Lansing)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | 0.1960 | 0.4930 | 0.1625 |
| 2 | 0.3157 | 0.7943 | 0.3722 |
| 3 | 0.1697 | 0.4270 | 0.4348 |
| 4 | -0.2008 | -0.5051 | 1.0269 |
| 5 | -0.4094 | -1.0298 | 0.2349 |
| 6 | -0.0671 | -0.1688 | 0.7043 |
| 7 | -0.4928 | -1.2397 | 0.2322 |
| 8 | 0.1912 | 0.4810 | 1.1318 |
| 9 | -0.3485 | -0.8767 | 0.4174 |
| 10 | 0.4351 | 1.0945 | 0.1640 |
| 11 | 0.0409 | 0.1028 | 0.6289 |
| 12 | 0.1700 | 0.4276 | 0.1413 |
| CONSTRUCT | | | |
| 1 | 0.3503 | 0.8814 | 0.2232 |
| 2 | 0.1873 | 0.4711 | 0.7781 |
| 3 | 0.3293 | 0.8285 | 0.3136 |
| 4 | 0.2878 | 0.7240 | 0.4758 |
| 5 | 0.3311 | 0.8328 | 0.3064 |
| 6 | 0.2079 | 0.5229 | 0.7266 |
| 7 | 0.2757 | 0.6935 | 0.5190 |
| 8 | 0.3400 | 0.8554 | 0.2682 |
| 9 | 0.2279 | 0.5734 | 0.6713 |
| 10 | 0.3134 | 0.7884 | 0.3784 |
| 11 | 0.2891 | 0.7274 | 0.4709 |
| 12 | 0.2697 | 0.6785 | 0.5397 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.610 | 52.41 | 3 | 0.877 | 28.73 | 4 | 0.445 | 63.56 | 5 | 0.716 | 44.27 | 6 | 0.220 | 77.28 |
| 7 | 0.602 | 52.96 | 8 | 0.709 | 44.86 | 9 | 0.208 | 77.97 | 10 | 0.606 | 52.68 | 11 | 0.622 | 51.57 |
| 12 | 0.848 | 32.04 | | | | | | | | | | | | |
| ONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.417 | 65.38 | 4 | 0.108 | 83.79 | 5 | 0.247 | 75.69 | 6 | 0.197 | 78.64 | 7 | 0.051 | 87.10 |
| 8 | 0.342 | 70.01 | 9 | 0.137 | 82.14 | 10 | 0.000 | 90.00 | 11 | 0.453 | 63.07 | 12 | 0.744 | 41.89 |
| ONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.433 | 64.37 | 5 | 0.803 | 36.57 | 6 | 0.131 | 82.45 | 7 | 0.608 | 52.58 | 8 | 0.684 | 46.88 |
| 9 | 0.205 | 78.17 | 10 | 0.511 | 59.26 | 11 | 0.453 | 63.07 | 12 | 0.794 | 37.43 | | | |
| ONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.541 | 57.24 | 6 | 0.724 | 43.60 | 7 | 0.312 | 71.81 | 8 | 0.688 | 46.56 | 9 | 0.821 | 34.85 |
| 10 | 0.682 | 47.02 | 11 | 0.404 | 66.17 | 12 | 0.177 | 79.80 | | | | | | |
| ONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.211 | 77.82 | 7 | 0.544 | 57.02 | 8 | 0.667 | 48.14 | 9 | 0.313 | 71.79 | 10 | 0.625 | 51.35 |
| 11 | 0.630 | 50.98 | 12 | 0.656 | 48.99 | | | | | | | | | |
| ONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.279 | 73.78 | 8 | 0.521 | 58.63 | 9 | 0.844 | 32.46 | 10 | 0.462 | 62.46 | 11 | 0.268 | 74.48 |
| 12 | 0.013 | 89.25 | | | | | | | | | | | | |
| ONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.602 | 52.97 | 9 | 0.228 | 76.79 | 10 | 0.742 | 42.10 | 11 | 0.447 | 63.43 | 12 | 0.377 | 67.85 |
| ONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.607 | 52.59 | 10 | 0.567 | 55.47 | 11 | 0.418 | 65.29 | 12 | 0.536 | 57.59 | | | |
| ONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.520 | 58.65 | 11 | 0.418 | 65.29 | 12 | -0.075 | 94.28 | | | | | | |
| ONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.733 | 42.85 | 12 | 0.231 | 76.64 | | | | | | | | | |
| ONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.438 | 64.00 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Hard working | not hard working. | 2 | 2 | 2 | 2 | 6 | 3 | 3 | 3 | 6 | 1 | 1 | 1 |
| 2 | Admits errors. | Does not admit errors. | 1 | 6 | 6 | 2 | 4 | 2 | 3 | 3 | 6 | 1 | 1 | 2 |
| 3 | Good presentation | Bad presentation. | 2 | 1 | 1 | 3 | 6 | 3 | 4 | 3 | 6 | 1 | 1 | 2 |
| 4 | Good attitude | Bad attitude | 3 | 2 | 2 | 2 | 7 | 3 | 4 | 2 | 5 | 1 | 1 | 3 |
| 5 | Communication Abilities | - Fails to communicate his ability. | 2 | 1 | 1 | 3 | 7 | 3 | 5 | 2 | 6 | 1 | 1 | 3 |
| 6 | Is Unflappable | - Panics. | 1 | 3 | 2 | 3 | 5 | 4 | 7 | 3 | 4 | 1 | 1 | 1 |
| 7 | Good Organizer | - Bad Organizer | 1 | 2 | 2 | 1 | 7 | 3 | 4 | 5 | 6 | 1 | 1 | 1 |
| 8 | Tries to achieve Standards | - Does not try to achieve standards | 2 | 1 | 1 | 1 | 7 | 3 | 5 | 3 | 6 | 1 | 1 | 2 |
| 9 | Enthusiastic | - Lacks enthusiasm | 3 | 3 | 2 | 2 | 7 | 3 | 2 | 3 | 7 | 1 | 1 | 4 |
| 10 | Controls life | - Is controlled by life | 2 | 1 | 1 | 3 | 7 | 2 | 5 | 1 | 5 | 1 | 1 | 2 |
| 11 | Relates to people | - Unable to relate | 3 | 3 | 2 | 1 | 7 | 3 | 2 | 3 | 6 | 1 | 1 | 2 |
| | Leadership / respect | - does not possess these qualities. | 2 | 2 | 1 | 3 | 7 | 3 | 3 | 4 | 7 | 1 | 1 | 2 |

Completed Grid - Manager H (Lansing)

Manager H (Lansing)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | -0.1328 | -0.4096 | 0.1810 |
| 2 | -0.1361 | -0.4198 | 0.3765 |
| 3 | -0.1920 | -0.5922 | 0.3332 |
| 4 | -0.1173 | -0.3617 | 0.1835 |
| 5 | 0.6313 | 1.9471 | 0.0707 |
| 6 | 0.0158 | 0.0488 | 0.0713 |
| 7 | 0.1782 | 0.5497 | 0.6069 |
| 8 | 0.0063 | 0.0194 | 0.2186 |
| 9 | 0.5130 | 1.5823 | 0.1477 |
| 10 | -0.3183 | -0.9816 | 0.0487 |
| 11 | -0.3183 | -0.9816 | 0.0487 |
| 12 | -0.1299 | -0.4008 | 0.2001 |
| CONSTRUCT | | | |
| 1 | -0.3145 | -0.9700 | 0.0591 |
| 2 | -0.1463 | -0.4512 | 0.7964 |
| 3 | -0.3125 | -0.9638 | 0.0710 |
| 4 | -0.3075 | -0.9484 | 0.1005 |
| 5 | -0.3066 | -0.9455 | 0.1060 |
| 6 | -0.2336 | -0.7205 | 0.4808 |
| 7 | -0.2984 | -0.9205 | 0.1528 |
| 8 | -0.3132 | -0.9659 | 0.0670 |
| 9 | -0.2871 | -0.8855 | 0.2159 |
| 10 | -0.2937 | -0.9059 | 0.1794 |
| 11 | -0.2942 | -0.9075 | 0.1765 |
| 12 | -0.3107 | -0.9583 | 0.0816 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager H (Lansing)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ONSTRUCT 1 | | | | | | | | | | | | | |
| 2 | 0.516 | 58.91 | 3 | 0.930 | 21.58 | 4 | 0.874 | 29.05 | 5 | 0.860 | 30.69 | 6 | 0.664 | 48.41 |
| 7 | 0.933 | 21.08 | 8 | 0.913 | 24.04 | 9 | 0.865 | 30.13 | 10 | 0.818 | 35.12 | 11 | 0.926 | 22.18 |
| 12 | 0.960 | 16.33 | | | | | | | | | | | | |
| ONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.285 | 73.43 | 4 | 0.348 | 69.63 | 5 | 0.247 | 75.70 | 6 | 0.369 | 68.34 | 7 | 0.492 | 60.53 |
| 8 | 0.307 | 72.13 | 9 | 0.481 | 61.23 | 10 | 0.237 | 76.28 | 11 | 0.513 | 59.14 | 12 | 0.397 | 66.63 |
| ONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.890 | 27.10 | 5 | 0.964 | 15.45 | 6 | 0.712 | 44.59 | 7 | 0.867 | 29.94 | 8 | 0.943 | 19.43 |
| 9 | 0.817 | 35.23 | 10 | 0.911 | 24.39 | 11 | 0.804 | 36.45 | 12 | 0.959 | 16.48 | | | |
| ONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.939 | 20.05 | 6 | 0.640 | 50.19 | 7 | 0.796 | 37.23 | 8 | 0.928 | 21.84 | 9 | 0.875 | 28.98 |
| 10 | 0.925 | 22.27 | 11 | 0.881 | 28.24 | 12 | 0.855 | 31.20 | | | | | | |
| ONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.724 | 43.65 | 7 | 0.789 | 37.93 | 8 | 0.942 | 19.57 | 9 | 0.799 | 36.96 | 10 | 0.971 | 13.79 |
| 11 | 0.761 | 40.44 | 12 | 0.885 | 27.74 | | | | | | | | | |
| ONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.710 | 44.77 | 8 | 0.741 | 42.22 | 9 | 0.368 | 68.41 | 10 | 0.731 | 42.99 | 11 | 0.454 | 63.01 |
| 12 | 0.602 | 53.02 | | | | | | | | | | | | |
| ONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.913 | 24.13 | 9 | 0.765 | 40.10 | 10 | 0.730 | 43.11 | 11 | 0.854 | 31.34 | 12 | 0.904 | 25.36 |
| ONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.801 | 36.32 | 10 | 0.900 | 25.86 | 11 | 0.840 | 32.87 | 12 | 0.896 | 26.37 | | | |
| ONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.719 | 44.05 | 11 | 0.945 | 19.08 | 12 | 0.896 | 26.42 | | | | | | |
| ONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.715 | 44.38 | 12 | 0.818 | 35.08 | | | | | | | | | |
| ONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.894 | 26.65 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

Present s...

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARDWORKING | 2 | 2 | 3 | 3 | 4 | 2 | 2 | 2 | 4 | 1 | 2 | 2 |
| 2 | ORDINARY | ALOOF / SNOBBISH. | 3 | 3 | 6 | 4 | 2 | 4 | 2 | 3 | 2 | 3 | 3 | 3 |
| 3 | BROAD ABILITY | LIMITED ABILITY | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 1 | 2 | 2 |
| 4 | RECEPTIVE | NON-RECEPTIVE. | 1 | 1 | 2 | 1 | 1 | 1 | 4 | 1 | 2 | 1 | 1 | 1 |
| 5 | POTENTIAL | NO POTENTIAL | 2 | 2 | 4 | 2 | 6 | 3 | 5 | 1 | 5 | 1 | 1 | 2 |
| 6 | HIGH CAPACITY FOR WORK | LOW CAPACITY FOR WORK | 1 | 1 | 2 | 1 | 4 | 1 | 2 | 1 | 3 | 1 | 1 | 1 |
| 7 | WILLING | NOT WILLING | 1 | 1 | 1 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 1 | 1 |
| 8 | INVOLVED | NOT INVOLVED. | 1 | 1 | 2 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 1 | 1 |
| 9 | GOOD EXPRESSION | LIMITED EXPRESSION. | 2 | 2 | 1 | 1 | 4 | 2 | 3 | 1 | 4 | 1 | 2 | 2 |
| 10 | AWARENESS | COMPLACENCY | 2 | 2 | 2 | 2 | 4 | 2 | 4 | 2 | 4 | 1 | 2 | 2 |
| 11 | CONSCIENTIOUS | NOT CONSCIENTIOUS. | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 3 | 1 | 1 | 1 |
| 12 | FLEXIBLE | RIGID. | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 1 | 1 |

631
Completed Grid - Manager I (Lansing)

## Manager I (Lansing)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT- | VECTOR | LOADING | RESIDUAL |
| 1 | -0.1476 | -0.4155 | 0.0444 |
| 2 | -0.1476 | -0.4155 | 0.0444 |
| 3 | -0.0256 | -0.0719 | 0.9822 |
| 4 | -0.1638 | -0.4610 | 0.1623 |
| 5 | 0.5797 | 1.6315 | 0.7480 |
| 6 | -0.1443 | -0.4061 | 0.0811 |
| 7 | 0.3671 | 1.0332 | 1.3385 |
| 8 | -0.1995 | -0.5614 | 0.0714 |
| 9 | 0.5036 | 1.4172 | 0.2359 |
| 10 | -0.3065 | -0.8627 | 0.2532 |
| 11 | -0.1679 | -0.4725 | 0.0729 |
| 12 | -0.1476 | -0.4155 | 0.0444 |
| CONSTRUCT | | | |
| 1 | -0.2717 | -0.7648 | 0.4151 |
| 2 | 0.1764 | 0.4964 | 0.7536 |
| 3 | -0.2349 | -0.6611 | 0.5629 |
| 4 | -0.1879 | -0.5289 | 0.7203 |
| 5 | -0.3312 | -0.9323 | 0.1309 |
| 6 | -0.3321 | -0.9345 | 0.1266 |
| 7 | -0.3436 | -0.9669 | 0.0651 |
| 8 | -0.3421 | -0.9629 | 0.0729 |
| 9 | -0.3192 | -0.8984 | 0.1928 |
| 10 | -0.3449 | -0.9707 | 0.0577 |
| 11 | -0.2981 | -0.8391 | 0.2959 |
| 12 | -0.1994 | -0.5611 | 0.6851 |

CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager I (Lansing).

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | |
| 2 | -0.075 | 94.33 | 3 | 0.692 | 46.19 | 4 | 0.103 | 84.10 | 5 | 0.741 | 42.21 |
| 6 | 0.819 | 34.9 | 7 | 0.614 | 52.12 | 8 | 0.682 | 46.98 | 9 | 0.613 | 52.16 |
| 10 | 0.701 | 45.49 | 11 | 0.821 | 34.7 | 12 | 0.207 | 78.07 | | | |
| CONSTRUCT 2 | | | | | | | | | | | |
| 3 | -0.264 | 105.33 | 4 | -0.166 | 99.56 | 5 | -0.218 | 102.57 | 6 | -0.341 | 109.95 |
| 7 | -0.631 | 129.1 | 8 | -0.377 | 112.18 | 9 | -0.690 | 133.62 | 10 | -0.559 | 124.02 |
| 11 | -0.489 | 119.27 | 12 | -0.083 | 94.7 | | | | | | |
| CONSTRUCT 3 | | | | | | | | | | | |
| 4 | -0.063 | 93.61 | 5 | 0.635 | 50.60 | 6 | 0.739 | 42.32 | 7 | 0.526 | 58.25 |
| 8 | 0.516 | 58.9 | 9 | 0.617 | 51.91 | 10 | 0.626 | 51.27 | 11 | 0.640 | 50.18 |
| 12 | -0.070 | 93.99 | | | | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | |
| 5 | 0.568 | 55.42 | 6 | 0.313 | 71.79 | 7 | 0.614 | 52.12 | 8 | 0.682 | 46.98 |
| 9 | 0.334 | 70.4 | 10 | 0.600 | 53.15 | 11 | 0.043 | 87.52 | 12 | 0.982 | 10.94 |
| CONSTRUCT 5 | | | | | | | | | | | |
| 6 | 0.895 | 26.43 | 7 | 0.862 | 30.49 | 8 | 0.933 | 21.08 | 9 | 0.775 | 39.17 |
| 10 | 0.878 | 28.5 | 11 | 0.712 | 44.60 | 12 | 0.612 | 52.29 | | | |
| CONSTRUCT 6 | | | | | | | | | | | |
| 7 | 0.858 | 30.96 | 8 | 0.904 | 25.34 | 9 | 0.793 | 37.53 | 10 | 0.832 | 33.69 |
| 11 | 0.899 | 26.0 | 12 | 0.374 | 68.06 | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | |
| 8 | 0.949 | 18.41 | 9 | 0.881 | 28.22 | 10 | 0.958 | 16.58 | 11 | 0.775 | 39.23 |
| 12 | 0.617 | 51.8 | | | | | | | | | |
| CONSTRUCT 8 | | | | | | | | | | | |
| 9 | 0.784 | 38.35 | 10 | 0.921 | 22.98 | 11 | 0.735 | 42.69 | 12 | 0.723 | 43.66 |
| CONSTRUCT 9 | | | | | | | | | | | |
| 10 | 0.891 | 26.97 | 11 | 0.826 | 34.29 | 12 | 0.343 | 69.91 | | | |
| CONSTRUCT 10 | | | | | | | | | | | |
| 11 | 0.742 | 42.06 | 12 | 0.607 | 52.62 | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | |
| 12 | 0.120 | 83.14 | | | | | | | | | |

Completed Grid - Manager J (Lansing)

| CONSTRUCTS POSITIVE | NEGATIVE | 1 Present S... | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 HARD WORKING. | NOT HARD WORKING. | 2. | 2. | 2. | 2. | 4. | 2. | 2. | 2. | 3. | 2 | 1 | 2. |
| 2 TECH. KNOWLEDGEABLE. | LOW TECH. KNOWL. | 1 | 6. | 5. | 2 | 4 | 1 | 7 | 1 | 2 | 2 | 1 | 2. |
| 3 REALISTIC SUPPORT. | NO SUPPORT. | 1 | 1 | 1 | 1 | 5 | 1 | 5 | 1 | 2 | 1 | 1 | 1 |
| 4 ENTHUSIASTIC. | NOT ENTHUSIASTIC. | 1 | 3. | 1 | 3 | 5 | 1 | 4 | 1 | 4 | 1 | 1 | 1 |
| 5 CONSTRUCTIVE. | RIGID & NARROW. MIS | 1 | 1 | 1 | 2 | 5 | 1 | 4 | 1 | 3. | 1 | 1 | 2 |
| 6 USES. INITIATIVE. | REQUIRES. GUIDANCE | 1 | 1 | 1 | 1 | 5 | 1 | 3 | 1 | 4 | 1 | 1 | 2 |
| 7 NON-TECH. FLEXIBLE. | NON. FLEXIBLE. | 1 | 1 | 1 | 1 | 4 | 1 | 5 | 1 | 3. | 1 | 1 | 2 |
| 8. SELF MOTIVATION. | REQUIRES SUPPORT | 1 | 1 | 1 | 1 | 5 | 1 | 3 | 1 | 3 | 1 | 1 | 2 |
| 9 LIGHT HEARTED. | MORE SERIOUS | 5 | 2 | 2 | 3 | 3 | 2 | 4 | 1 | 3 | 2 | 1 | 3 |
| 10 | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | |

Manager J (Lansing)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | 0.1465 | 0.3720 | 0.5353 |
| 2 | 0.0909 | 0.2308 | 0.3599 |
| 3 | 0.1572 | 0.3990 | 0.1726 |
| 4 | 0.0843 | 0.2140 | 0.1285 |
| 5 | -0.6692 | -1.6991 | 0.1732 |
| 6 | 0.2025 | 0.5140 | 0.0407 |
| 7 | -0.4557 | -1.1568 | 0.5028 |
| 8 | 0.2211 | 0.5613 | 0.1351 |
| 9 | -0.2833 | -0.7193 | 0.1853 |
| 10 | 0.1911 | 0.4853 | 0.0158 |
| 11 | 0.2730 | 0.6931 | 0.2052 |
| 12 | 0.0416 | 0.1056 | 0.1001 |
| CONSTRUCT | | | |
| 1 | 0.3135 | 0.7960 | 0.3664 |
| 2 | 0.2026 | 0.5143 | 0.7355 |
| 3 | 0.3677 | 0.9335 | 0.1285 |
| 4 | 0.3532 | 0.8968 | 0.1957 |
| 5 | 0.3862 | 0.9806 | 0.0384 |
| 6 | 0.3720 | 0.9446 | 0.1078 |
| 7 | 0.3686 | 0.9357 | 0.1245 |
| 8 | 0.3793 | 0.9629 | 0.0729 |
| 9 | 0.1828 | 0.4641 | 0.7846 |

CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS Manager J (Lansing)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.199 | 78.54 | 3 | 0.615 | 52.05 | 4 | 0.719 | 44.06 | 5 | 0.750 | 41.40 | 6 | 0.842 | 32.61 |
| 7 | 0.572 | 55.14 | 8 | 0.836 | 33.30 | 9 | 0.308 | 72.05 | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.568 | 55.41 | 4 | 0.541 | 57.21 | 5 | 0.429 | 64.58 | 6 | 0.295 | 72.86 | 7 | 0.539 | 57.42 |
| 8 | 0.349 | 69.59 | 9 | 0.190 | 79.06 | | | | | | | | | |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.790 | 37.84 | 5 | 0.928 | 21.84 | 6 | 0.818 | 35.15 | 7 | 0.943 | 19.36 | 8 | 0.879 | 28.42 |
| 9 | 0.392 | 66.94 | | | | | | | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.870 | 29.50 | 6 | 0.820 | 34.93 | 7 | 0.777 | 38.97 | 8 | 0.809 | 36.04 | 9 | 0.349 | 69.56 |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.932 | 21.31 | 7 | 0.932 | 21.31 | 8 | 0.960 | 16.33 | 9 | 0.429 | 64.58 | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.862 | 30.51 | 8 | 0.981 | 11.29 | 9 | 0.343 | 69.94 | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.880 | 28.35 | 9 | 0.454 | 62.98 | | | | | | | | | |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.348 | 69.60 | | | | | | | | | | | | |

ELEMENTS

ONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Ideal Self | 11 Past Self | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING. | NOT HARD WORKING | 1 | 1 | 1 | 2 | 6 | 2 | 4 | 4 | 7 | 1 | 1 | 2 |
| 2 | STRAIGHT TO THE POINT. | BEST OF BOTH WORLD'S | 2 | 2 | 3 | 2 | 3 | 2 | 6 | 4 | 5 | 1 | 3 | 2 |
| 3 | SELF-MOTIVATING. | NON MOTIVATED | 1 | 2 | 2 | 1 | 4 | 1 | 4 | 4 | 7 | 1 | 2 | 2 |
| 4 | REALIST. | HEADIN THE CLOUDS. | 2 | 3 | 4 | 1 | 4 | 1 | 6 | 5 | 4 | 1 | 2 | 3 |
| 5 | WILLING | LAZY | 1 | 1 | 2 | 2 | 4 | 1 | 4 | 2 | 7 | 2 | 2 | 2 |
| 6 | HAPPY GO LUCKY | MISERABLE. | 2 | 1 | 2 | 3 | 4 | 3 | 2 | 4 | 2 | 4 | 3 | 3 |
| 7 | CONCERNED. | NONCHALENT | 2 | 4 | 4 | 1 | 4 | 3 | 4 | 2 | 4 | 2 | 2 | 2 |
| 8 | QUALIFIED | UNQUALIFIED | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 1 | 5 | 1 | 1 | 1 |
| 9 | WISDOM | LACK OF | 2 | 2 | 3 | 1 | 4 | 3 | 4 | 2 | 5 | 2 | 2 | 3 |
| 10 | CREDIBLE | UNCREDIBLE. | 1 | 3 | 3 | 1 | 2 | 1 | 5 | 1 | 4 | 1 | 1 | 1 |
| 11 | AMBITIOUS. | UNAMBITIOUS. | 1 | 2 | 1 | 3 | 4 | 1 | 2 | 1 | 5 | 1 | 1 | 2 |
| | SINCERE. | INSINCERE | 2 | 3 | 2 | 1 | 4 | 2 | 4 | 2 | 5 | 2 | 1 | 2 |

1 2 3 4 5 6 7

Completed Grid - Manager K (Lansing)

Manager K (Lansing)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | -0.2422 | -0.6776 | 0.1048 |
| 2 | -0.0511 | -0.1429 | 0.6942 |
| 3 | -0.0209 | -0.0585 | 0.4186 |
| 4 | -0.2523 | -0.7058 | 0.4512 |
| 5 | 0.2936 | 0.8215 | 0.4491 |
| 6 | -0.1506 | -0.4215 | 0.3057 |
| 7 | 0.4286 | 1.1992 | 0.4232 |
| 8 | -0.0401 | -0.1123 | 0.6687 |
| 9 | 0.6617 | 1.8514 | 0.2411 |
| 10 | -0.2797 | -0.7826 | 0.2120 |
| 11 | -0.2190 | -0.6126 | 0.1018 |
| 12 | -0.1280 | -0.3582 | 0.1012 |
| CONSTRUCT | | | |
| 1 | -0.3111 | -0.8705 | 0.2422 |
| 2 | -0.2951 | -0.8257 | 0.3182 |
| 3 | -0.3293 | -0.9213 | 0.1513 |
| 4 | -0.2588 | -0.7242 | 0.4756 |
| 5 | -0.3233 | -0.9047 | 0.1816 |
| 6 | 0.0839 | 0.2347 | 0.9449 |
| 7 | -0.2635 | -0.7372 | 0.4565 |
| 8 | -0.3022 | -0.8456 | 0.2849 |
| 9 | -0.3202 | -0.8960 | 0.1972 |
| 10 | -0.2933 | -0.8206 | 0.3265 |
| 11 | -0.2615 | -0.7318 | 0.4645 |
| 12 | -0.3337 | -0.9337 | 0.1282 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager K (Lansing)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | |
| 2 | 0.679 | 47.26 | 3 | 0.904 | 25.26 | 4 | 0.576 | 54.85 | 5 | 0.873 | 29.15 |
| 7 | 0.439 | 63.93 | 8 | 0.795 | 37.38 | 9 | 0.759 | 40.58 | 10 | 0.458 | 62.71 |
| 12 | 0.800 | 36.91 | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | |
| 3 | 0.811 | 35.83 | 4 | 0.839 | 32.96 | 5 | 0.709 | 44.84 | 6 | -0.212 | 102.24 |
| 8 | 0.668 | 48.08 | 9 | 0.650 | 49.44 | 10 | 0.757 | 40.79 | 11 | 0.374 | 68.06 |
| CONSTRUCT 3 | | | | | | | | | | | |
| 4 | 0.721 | 43.85 | 5 | 0.902 | 25.51 | 6 | -0.064 | 93.68 | 7 | 0.542 | 57.20 |
| 9 | 0.774 | 39.30 | 10 | 0.632 | 50.83 | 11 | 0.699 | 45.63 | 12 | 0.818 | 35.08 |
| CONSTRUCT 4 | | | | | | | | | | | |
| 5 | 0.509 | 59.44 | 6 | -0.171 | 99.85 | 7 | 0.593 | 53.66 | 8 | 0.350 | 69.49 |
| 10 | 0.701 | 45.52 | 11 | 0.245 | 75.82 | 12 | 0.620 | 51.69 | | | |
| CONSTRUCT 5 | | | | | | | | | | | |
| 6 | -0.027 | 91.56 | 7 | 0.471 | 61.91 | 8 | 0.816 | 35.26 | 9 | 0.807 | 36.20 |
| 11 | 0.817 | 35.17 | 12 | 0.802 | 36.66 | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | |
| 7 | -0.465 | 117.69 | 8 | -0.133 | 97.65 | 9 | -0.145 | 98.33 | 10 | -0.599 | 126.82 |
| 12 | -0.265 | 105.38 | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | |
| 8 | 0.519 | 58.73 | 9 | 0.752 | 41.20 | 10 | 0.807 | 36.16 | 11 | 0.363 | 68.72 |
| CONSTRUCT 8 | | | | | | | | | | | |
| 9 | 0.791 | 37.75 | 10 | 0.636 | 50.48 | 11 | 0.715 | 44.35 | 12 | 0.776 | 39.14 |
| CONSTRUCT 9 | | | | | | | | | | | |
| 10 | 0.678 | 47.33 | 11 | 0.592 | 53.68 | 12 | 0.867 | 29.85 | | | |
| CONSTRUCT 10 | | | | | | | | | | | |
| 11 | 0.429 | 64.59 | 12 | 0.776 | 39.14 | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | |
| 12 | 0.705 | 45.17 | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | |
| 6 | 0.179 | 79.6 | | | | | | | | | |
| 11 | 0.801 | 36.7 | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | |
| 7 | 0.499 | 60.0 | | | | | | | | | |
| 12 | 0.633 | 50.7 | | | | | | | | | |
| CONSTRUCT 3 | | | | | | | | | | | |
| 8 | 0.702 | 45.4 | | | | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | |
| 9 | 0.580 | 54.5 | | | | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | |
| 10 | 0.631 | 50.8 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | |
| 11 | -0.070 | 94.0 | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | |
| 12 | 0.787 | 38.0 | | | | | | | | | |

ELEMENTS

Present Self

T.

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING. | NOT HARD WORKING. | 1 | 1 | 1 | 1 | 6 | 2 | 4 | 1 | 6 | 1 | 1 | 1 |
| 2 | KEENESS | LACKS KEENESS. | 1 | 1 | 1 | 2 | 6 | 1 | 5 | 1 | 6 | 1 | 1 | 1 |
| 3 | THOROUGH. | LAZY | 1 | 1 | 1 | 1 | 5 | 2 | 3 | 1 | 2 | 1 | 1 | 1 |
| 4 | SMART. | SLOPPY. | 1 | 1 | 1 | 3 | 2 | 1 | 5 | 1 | 2 | 1 | 1 | 1 |
| 5 | FAST WORKER | SLOW. | 1 | 1 | 1 | 1 | 7 | 2 | 6 | 2 | 6 | 1 | 1 | 1 |
| 6 | FORSIGHT. | NO FORSIGHT. | 1 | 1 | 1 | 3 | 7 | 2 | 7 | 2 | 5 | 1 | 1 | 1 |
| 7 | PO. MAN | NON CO. MAN. | 1 | 1 | 1 | 2 | 6 | 1 | 3 | 1 | 4 | 1 | 1 | 1 |
| 8 | RELIABLE. | NOT RELIABLE. | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| 9 | ~~I COULD LIKE MORE~~ WITH CONFIDENCE. | SHY. | 2 | 1 | 1 | 2 | 6 | 3 | 5 | 4 | 6 | 1 | 3 | 1 |
| 10 | LOYAL. | INDIFFERENT. | 1 | 1 | 1 | 1 | 4 | 1 | 2 | 1 | 4 | 1 | 1 | 1 |
| | CONSISTANT | NON-CONSISTANT. | 1 | 1 | 1 | 1 | 5 | 2 | 2 | 1 | 3 | 1 | 1 | 1 |
| | MID TECH. | TECH. ORDINARY | 2 | 2 | 3 | 1 | 3 | 3 | 6 | 2 | 3 | 1 | 2 | 2 |

Completed Grid - Manager L (Lansing)

640

## Manager L (Lansing)

| | COMPONENT 1 | | |
|---|---|---|---|
| ELEMENT | VECTOR | LOADING | RESIDUAL |
| 1 | -0.1833 | -0.5631 | 0.0075 |
| 2 | -0.1981 | -0.6086 | 0.0234 |
| 3 | -0.1836 | -0.5639 | 0.0759 |
| 4 | -0.1085 | -0.3334 | 0.2948 |
| 5 | 0.6679 | 2.0517 | 0.4342 |
| 6 | -0.0640 | -0.1967 | 0.1238 |
| 7 | 0.3647 | 1.1203 | 1.0847 |
| 8 | -0.1273 | -0.3912 | 0.1065 |
| 9 | 0.4116 | 1.2645 | 0.2779 |
| 10 | -0.2127 | -0.6534 | 0.0722 |
| 11 | -0.1685 | -0.5176 | 0.0363 |
| 12 | -0.1981 | -0.6086 | 0.0234 |
| CONSTRUCT | | | |
| 1 | -0.3166 | -0.9727 | 0.0539 |
| 2 | -0.3162 | -0.9714 | 0.0563 |
| 3 | -0.2989 | -0.9182 | 0.1570 |
| 4 | -0.1851 | -0.5686 | 0.6767 |
| 5 | -0.3208 | -0.9856 | 0.0267 |
| 6 | -0.3107 | -0.9544 | 0.0892 |
| 7 | -0.3145 | -0.9661 | 0.0667 |
| 8 | -0.2671 | -0.8204 | 0.3269 |
| 9 | -0.2910 | -0.8938 | 0.2011 |
| 10 | -0.3037 | -0.9329 | 0.1296 |
| 11 | -0.3026 | -0.9297 | 0.1357 |
| 12 | -0.1951 | -0.5992 | 0.6409 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager L (Lansing)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.969 | 14.19 | 3 | 0.840 | 32.84 | 4 | 0.470 | 62.00 | 5 | 0.969 | 14.35 | 6 | 0.887 | 27.41 |
| 7 | 0.933 | 21.03 | 8 | 0.788 | 37.98 | 9 | 0.879 | 28.44 | 10 | 0.973 | 13.34 | 11 | 0.914 | 23.89 |
| 12 | 0.555 | 56.26 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.811 | 35.80 | 4 | 0.635 | 50.60 | 5 | 0.968 | 14.60 | 6 | 0.943 | 19.50 | 7 | 0.944 | 19.32 |
| 8 | 0.734 | 42.82 | 9 | 0.861 | 30.59 | 10 | 0.941 | 19.75 | 11 | 0.846 | 32.19 | 12 | 0.578 | 54.69 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.460 | 62.61 | 5 | 0.878 | 28.58 | 6 | 0.870 | 29.53 | 7 | 0.896 | 26.38 | 8 | 0.860 | 30.71 |
| 9 | 0.753 | 41.14 | 10 | 0.782 | 38.54 | 11 | 0.940 | 19.95 | 12 | 0.562 | 55.81 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.596 | 53.42 | 6 | 0.776 | 39.13 | 7 | 0.486 | 60.93 | 8 | 0.111 | 83.63 | 9 | 0.485 | 60.98 |
| 10 | 0.338 | 70.23 | 11 | 0.280 | 73.74 | 12 | 0.674 | 47.60 | | | | | | |
| UNSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.953 | 17.55 | 7 | 0.917 | 23.55 | 8 | 0.739 | 42.32 | 9 | 0.911 | 24.39 | 10 | 0.912 | 24.26 |
| 11 | 0.878 | 28.58 | 12 | 0.676 | 47.50 | | | | | | | | | |
| ONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.899 | 25.93 | 8 | 0.669 | 48.03 | 9 | 0.856 | 31.09 | 10 | 0.809 | 36.01 | 11 | 0.807 | 36.18 |
| 12 | 0.677 | 47.36 | | | | | | | | | | | | |
| ONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.905 | 25.12 | 9 | 0.812 | 35.75 | 10 | 0.943 | 19.45 | 11 | 0.941 | 19.71 | 12 | 0.405 | 66.09 |
| ONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.655 | 49.08 | 10 | 0.850 | 31.77 | 11 | 0.943 | 19.44 | 12 | 0.156 | 81.03 | | | |
| JNSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.833 | 33.58 | 11 | 0.791 | 37.68 | 12 | 0.556 | 56.23 | | | | | | |
| NSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.909 | 24.63 | 12 | 0.386 | 67.29 | | | | | | | | | |
| NSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.393 | 66.84 | | | | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 Present Self | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Ideal Self | 11 Past Self | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Level Working | Not level working. | 3 | 2 | 1 | 2 | 7 | 3 | 3 | 3 | 2 | 1 | 3 | 2 |
| 2 | Considered decisions | instinct decisions. | 3 | 1 | 7 | 3 | 5 | 3 | 2 | 2 | 6 | 2 | 4 | 3 |
| 3 | Emotional | unemotional. | 3 | 1 | 6 | 2 | 4 | 3 | 4 | 3 | 5 | 3 | 4 | 3 |
| 4 | well motivated | not motivated. | 2 | 2 | 1 | 2 | 7 | 2 | 3 | 2 | 2 | 3 | 2 | 2 |
| 5 | Harnesses his talents / but not pushy | Poor human relations skills (exaggerated) | 3 | 2 | 3 | 3 | 7 | 3 | 5 | 1 | 6 | 2 | 4 | 3 |
| 6 | Committed | uncommitted. | 1 | 1 | 1 | 1 | 7 | 2 | 3 | 1 | 1 | 1 | 1 | 1 |
| 7 | Good listener | Not Good listener. | 2 | 1 | 6 | 1 | 4 | 2 | 5 | 2 | 7 | 1 | 3 | 2 |
| 8 | Good skill with people. | Poor human R. skills | 3 | 1 | 6 | 2 | 6 | 4 | 5 | 3 | 7 | 1 | 4 | 2 |
| 9 | Making approach | unsuitable approach | 2 | 1 | 2 | 2 | 7 | 3 | 5 | 2 | 4 | 1 | 1 | 2 |
| 10 | Calm approach | unsuitable approach | 3 | 1 | 6 | 2 | 4 | 4 | 2 | 3 | 6 | 2 | 3 | 2 |
| 11 | Oral skill | lack of oral skill | 4 | 2 | 2 | 4 | 5 | 5 | 6 | 4 | 3 | 2 | 5 | 3 |
| 12 | Family / humanity | Derogatory. | 2 | 4 | 6 | 2 | 6 | 4 | 5 | 2 | 1 | 1 | 2 | 2 |

Completed Grid - Manager M (Lansing)

## Manager M (Lansing)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.1301 | -0.3365 | 0.0524 |
| 2 | -0.3757 | -0.9714 | 0.3504 |
| 3 | 0.2238 | 0.5786 | 1.5349 |
| 4 | -0.2344 | -0.6060 | 0.0905 |
| 5 | 0.6008 | 1.5534 | 1.3279 |
| 6 | 0.0036 | 0.0093 | 0.1636 |
| 7 | 0.2216 | 0.5729 | 0.4457 |
| 8 | -0.1947 | -0.5035 | 0.1464 |
| 9 | 0.3978 | 1.0286 | 0.7200 |
| 10 | -0.2990 | -0.7733 | 0.2139 |
| 11 | -0.0105 | -0.0271 | 0.2233 |
| 12 | -0.2031 | -0.5251 | 0.0446 |
| CONSTRUCT | | | |
| 1 | -0.2097 | -0.5422 | 0.7061 |
| 2 | -0.2816 | -0.7282 | 0.4697 |
| 3 | -0.2903 | -0.7506 | 0.4367 |
| 4 | -0.2090 | -0.5405 | 0.7079 |
| 5 | -0.3429 | -0.8866 | 0.2139 |
| 6 | -0.2677 | -0.6922 | 0.5208 |
| 7 | -0.3221 | -0.8329 | 0.3063 |
| 8 | -0.3638 | -0.9408 | 0.1148 |
| 9 | -0.3329 | -0.8607 | 0.2592 |
| 10 | -0.2987 | -0.7723 | 0.4036 |
| 11 | -0.1499 | -0.3876 | 0.8498 |
| 12 | -0.3178 | -0.8216 | 0.3249 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager M (Lansing)

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.043 | 87.54 | 3 | 0.012 | 89.33 | 4 | 0.914 | 23.96 | 5 | 0.583 | 54.32 | 6 | 0.911 | 24.38 |
| 7 | 0.030 | 88.28 | 8 | 0.304 | 72.31 | 9 | 0.776 | 39.12 | 10 | 0.030 | 88.30 | 11 | 0.598 | 53.28 |
| 12 | 0.205 | 78.20 | | | | | | | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.853 | 31.48 | 4 | 0.051 | 87.09 | 5 | 0.545 | 56.98 | 6 | 0.181 | 79.59 | 7 | 0.774 | 39.33 |
| 8 | 0.802 | 36.69 | 9 | 0.326 | 70.99 | 10 | 0.884 | 27.92 | 11 | -0.103 | 95.94 | 12 | 0.633 | 50.70 |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.023 | 88.68 | 5 | 0.500 | 59.98 | 6 | 0.167 | 80.39 | 7 | 0.881 | 28.19 | 8 | 0.849 | 31.94 |
| 9 | 0.402 | 66.31 | 10 | 0.886 | 27.59 | 11 | 0.064 | 86.34 | 12 | 0.586 | 54.12 | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.627 | 51.19 | 6 | 0.940 | 19.98 | 7 | 0.059 | 86.62 | 8 | 0.239 | 76.15 | 9 | 0.817 | 35.17 |
| 10 | -0.020 | 91.12 | 11 | 0.378 | 67.80 | 12 | 0.254 | 75.31 | | | | | | |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.699 | 45.65 | 7 | 0.667 | 48.14 | 8 | 0.755 | 40.94 | 9 | 0.866 | 29.98 | 10 | 0.493 | 60.48 |
| 11 | 0.445 | 63.59 | 12 | 0.688 | 46.50 | | | | | | | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.227 | 76.89 | 8 | 0.435 | 64.24 | 9 | 0.896 | 26.39 | 10 | 0.158 | 80.89 | 11 | 0.503 | 59.79 |
| 12 | 0.453 | 63.09 | | | | | | | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.927 | 22.09 | 9 | 0.524 | 58.40 | 10 | 0.863 | 30.31 | 11 | 0.098 | 84.36 | 12 | 0.836 | 33.28 |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.674 | 47.65 | 10 | 0.905 | 25.13 | 11 | 0.333 | 70.58 | 12 | 0.833 | 33.54 | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.399 | 66.49 | 11 | 0.573 | 55.07 | 12 | 0.614 | 52.10 | | | | | | |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.033 | 88.14 | 12 | 0.735 | 42.66 | | | | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.058 | 86.67 | | | | | | | | | | | | |

Completed Grid - Manager N (Lansing)

| CONSTRUCTS | | | Present s... | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1 | Hard Working | not Hard working | 1 | 1 | 1 | 1 | 4 | 2 | 3 | 1 | 2 | 1 | 1 | 1 |
| 2 | Domineering | Dont delegate. | 3 | 1 | 1 | 4 | 3 | 4 | 3 | 4 | 3 | 2 | 4 | 4 |
| 3 | Likes slow job. | makes instant decisi... | 1 | 1 | 1 | 1 | 4 | 2 | 2 | 2 | 4 | 1 | 1 | 2 |
| 4 | Quiet | Must have a voice. | 2 | 5 | 6 | 2 | 2 | 2 | 3 | 2 | 3 | 4 | 1 | 2 |
| 5 | Supportive | Selfish. | 2 | 3 | 2 | 3 | 4 | 3 | 4 | 3 | 3 | 2 | 2 | 1 |
| 6 | Striving for improvement | Content. | 3 | 2 | 4 | 4 | 5 | 4 | 5 | 3 | 5 | 2 | 3 | 2 |
| 7 | Cares about people. | not caring | 3 | 5 | 3 | 3 | 4 | 4 | 5 | 3 | 3 | 2 | 3 | 3 |
| 8 | Confuses concern. | Self promotion. | 1 | 2 | 1 | 2 | 4 | 3 | 7 | 3 | 3 | 1 | 1 | 2 |
| 9 | able to cope with several jobs. | restricted to one job. | 2 | 1 | 1 | 4 | 7 | 3 | 3 | 5 | 5 | 1 | 3 | 2 |
| 10 | Less flexible | flexible. | 3 | 1 | 1 | 4 | 6 | 3 | 4 | 3 | 3 | 1 | 4 | 2 |
| 11 | able to cope with increased work load. | not able to cope with increased work load. | 2 | 1 | 2 | 4 | 6 | 4 | 4 | 3 | 3 | 2 | 2 | 2 |
| 12 | Wants not accept changes status quo | accepts changes status. | 2 | 1 | 1 | 3 | 3 | 4 | 3 | 2 | 2 | 1 | 4 | 2 |

Manager N (Lansing)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.1719 | -0.4430 | 0.1500 |
| 2 | -0.3249 | -0.8374 | 0.8914 |
| 3 | -0.3499 | -0.9016 | 0.5736 |
| 4 | 0.0965 | 0.2486 | 0.3374 |
| 5 | 0.5925 | 1.5270 | 0.3028 |
| 6 | 0.1865 | 0.4807 | 0.2387 |
| 7 | 0.3587 | 0.9245 | 0.7208 |
| 8 | 0.0495 | 0.1275 | 0.2780 |
| 9 | 0.1742 | 0.4490 | 0.4526 |
| 10 | -0.3802 | -0.9798 | 0.1850 |
| 11 | -0.0303 | -0.0780 | 0.7517 |
| 12 | -0.2008 | -0.5175 | 0.4766 |

| CONSTRUCT | | | |
|---|---|---|---|
| 1 | -0.3354 | -0.8643 | 0.2529 |
| 2 | -0.1899 | -0.4894 | 0.7605 |
| 3 | -0.2828 | -0.7288 | 0.4689 |
| 4 | 0.2051 | 0.5286 | 0.7206 |
| 5 | -0.3012 | -0.7762 | 0.3975 |
| 6 | -0.3096 | -0.7978 | 0.3634 |
| 7 | -0.1594 | -0.4109 | 0.8312 |
| 8 | -0.2919 | -0.7522 | 0.4342 |
| 9 | -0.3357 | -0.8651 | 0.2516 |
| 10 | -0.3508 | -0.9042 | 0.1825 |
| 11 | -0.3565 | -0.9188 | 0.1558 |
| 12 | -0.2633 | -0.6786 | 0.5395 |

## CORRELATIONS AND ANGULAR DISTANCES BETWEEN CONSTRUCTS — Manager N (Lansing)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | |
| 2 | 0.081 | 85.36 | 3 | 0.750 | 41.37 | 4 | -0.176 | 100.15 | 5 | 0.754 | 41.07 |
| 6 | 0.742 | 42.0 | 7 | 0.515 | 58.99 | 8 | 0.764 | 40.19 | 9 | 0.651 | 49.39 |
| 10 | 0.702 | 45.39 | 11 | 0.833 | 33.6 | 12 | 0.397 | 66.62 | | | |
| CONSTRUCT 2 | | | | | | | | | | | |
| 3 | 0.217 | 77.47 | 4 | -0.934 | 159.06 | 5 | 0.000 | 90.00 | 6 | 0.138 | 82.07 |
| 7 | -0.179 | 100.3 | 8 | 0.166 | 79.27 | 9 | 0.514 | 59.06 | 10 | 0.589 | 53.92 |
| 11 | 0.409 | 65.85 | 12 | 0.751 | 41.3 | | | | | | |
| CONSTRUCT 3 | | | | | | | | | | | |
| 4 | -0.241 | 103.94 | 5 | 0.490 | 60.66 | 6 | 0.629 | 51.05 | 7 | 0.166 | 80.44 |
| 8 | 0.518 | 58.8 | 9 | 0.788 | 38.03 | 10 | 0.533 | 57.80 | 11 | 0.641 | 50.15 |
| 12 | 0.203 | 78.31 | | | | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | |
| 5 | -0.047 | 92.67 | 6 | -0.106 | 96.09 | 7 | 0.126 | 82.75 | 8 | -0.143 | 98.23 |
| 9 | -0.555 | 123.6 | 10 | -0.707 | 134.99 | 11 | -0.412 | 114.33 | 12 | -0.770 | 140.36 |
| CONSTRUCT 5 | | | | | | | | | | | |
| 6 | 0.702 | 45.44 | 7 | 0.645 | 49.86 | 8 | 0.769 | 39.76 | 9 | 0.617 | 51.89 |
| 10 | 0.590 | 53.8 | 11 | 0.718 | 44.11 | 12 | 0.318 | 71.45 | | | |
| CONSTRUCT 6 | | | | | | | | | | | |
| 7 | 0.303 | 72.38 | 8 | 0.629 | 51.00 | 9 | 0.642 | 50.09 | 10 | 0.647 | 49.72 |
| 11 | 0.762 | 40.3 | 12 | 0.435 | 64.20 | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | |
| 8 | 0.670 | 47.90 | 9 | 0.085 | 85.12 | 10 | 0.229 | 76.75 | 11 | 0.250 | 75.51 |
| 12 | 0.220 | 77.3 | | | | | | | | | |
| CONSTRUCT 8 | | | | | | | | | | | |
| 9 | 0.460 | 62.59 | 10 | 0.506 | 59.62 | 11 | 0.628 | 51.10 | 12 | 0.342 | 69.98 |
| CONSTRUCT 9 | | | | | | | | | | | |
| 10 | 0.838 | 33.11 | 11 | 0.809 | 36.00 | 12 | 0.480 | 61.29 | | | |
| CONSTRUCT 10 | | | | | | | | | | | |
| 11 | 0.829 | 34.04 | 12 | 0.751 | 41.36 | | | | | | |
| CONSTRUCT 11 | | | | | | | | | | | |
| 12 | 0.573 | 55.01 | | | | | | | | | |

ELEMENTS

CONSTRUCTS

| | POSITIVE | NEGATIVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HARD WORKING | NOT HARD WORKING | 1 | 1 | 1 | 4 | 7 | 1 | 4 | 1 | 6 | 1 | 1 | 1 |
| 2 | HIGH PERFORMER | NONE PERFORMER. | 1 | 1 | 1 | 3 | 7 | 1 | 4 | 2 | 7 | 1 | 1 | 2 |
| 3 | ACHIEVES OBJECTIVES. | OBJECTIVES NOT IMPORTANT | 1 | 1 | 1 | 2 | 6 | 1 | 4 | 2 | 6 | 1 | 1 | 1 |
| 4 | PRACTICAL BUSINESS APPROACH. CONCEPTUAL THINKER | LIMITED BUSSINESS FEEL. NONE CONCEPTUAL UNDERSTANDING | 1 3 | 1 2 | 3 1 | 2 2 | 6 7 | 1 1 | 3 3 | 2 4 | 6 7 | 1 1 | 3 5 | 1 4 |
| 5 | CLEAR THINKING CONCISE | WOOLEY | 2 | 1 | 1 | 3 | 7 | 1 | 3 | 2 | 7 | 1 | 3 | 2 |
| 6 | GOOD ORGANISER | UNINTRESTED. | 2 | 1 | 1 | 4 | 5 | 2 | 5 | 2 | 6 | 1 | 3 | 2 |
| 7 | GOOD PLANNER WITH AN EYE TO DETAIL | LEAVES IT TO OTHER PEOPLE. | 1 | 1 | 2 | 1 | 5 | 2 | 4 | 1 | 6 | 1 | 3 | 2 |
| 8 | COMMITTED | TAKE ALL GIVES NOTHING. | 1 | 1 | 1 | 3 | 7 | 2 | 6 | 1 | 7 | 1 | 1 | 1 |
| 9 | COMMUNICATES WELL IN DETAIL. | CANNOT MOTIVATE PEOPLE. | 1 | 1 | 1 | 2 | 6 | 1 | 4 | 2 | 7 | 1 | 2 | 1 |
| 10 | LIKES GETTING SOME WHERE | LIKES BEING SOMEWHERE | 1 | 1 | 1 | 5 | 7 | 1 | 5 | 2 | 7 | 1 | 1 | 1 |
| 11 | RESPONSIBILITY FOR JOB IS SECURE | UNINTERESTED IN OTHER PEOPLE | 1 | 2 | 2 | 4 | 6 | 6 | 6 | 3 | 6 | 1 | 2 | 3 |
| 12 | PERSUASIVE DEFENSIVE WHAT EVER. | SURLEY. LOST OPPORTUNITIES. | 1 1 | 1 1 | 2 2 | 4 3 | 7 7 | 1 3 | 6 5 | 2 2 | 7 6 | 1 1 | 2 1 | 1 1 |

Completed Grid - Manager O. (Lansing)

Manager O (Lansing)

COMPONENT 1

| ELEMENT | VECTOR | LOADING | RESIDUAL |
|---|---|---|---|
| 1 | -0.2145 | -0.7487 | 0.0844 |
| 2 | -0.2378 | -0.8298 | 0.0123 |
| 3 | -0.1874 | -0.6539 | 0.1414 |
| 4 | 0.0031 | 0.0110 | 0.3349 |
| 5 | 0.5678 | 1.9817 | 0.0468 |
| 6 | -0.1512 | -0.5278 | 0.3721 |
| 7 | 0.2538 | 0.8858 | 0.2279 |
| 8 | -0.1084 | -0.3785 | 0.0788 |
| 9 | 0.5836 | 2.0367 | 0.0490 |
| 10 | -0.2563 | -0.8946 | 0.0618 |
| 11 | -0.0901 | -0.3144 | 0.3083 |
| 12 | -0.1626 | -0.5675 | 0.1024 |
| CONSTRUCT | | | |
| 1 | -0.2744 | -0.9575 | 0.0832 |
| 2 | -0.2813 | -0.9816 | 0.0365 |
| 3 | -0.2827 | -0.9867 | 0.0265 |
| 4 | -0.2640 | -0.9214 | 0.1511 |
| 5 | -0.2246 | -0.7838 | 0.3857 |
| 6 | -0.2731 | -0.9532 | 0.0915 |
| 7 | -0.2612 | -0.9117 | 0.1687 |
| 8 | -0.2632 | -0.9184 | 0.1565 |
| 9 | -0.2778 | -0.9694 | 0.0603 |
| 10 | -0.2830 | -0.9875 | 0.0248 |
| 11 | -0.2715 | -0.9475 | 0.1022 |
| 12 | -0.2231 | -0.7785 | 0.3940 |
| 13 | -0.2800 | -0.9771 | 0.0453 |
| 14 | -0.2728 | -0.9520 | 0.0938 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONSTRUCT 1 | | | | | | | | | | | | | | |
| 2 | 0.967 | 14.68 | 3 | 0.950 | 18.23 | 4 | 0.854 | 31.34 | 5 | 0.670 | 47.95 | 6 | 0.918 | 23. |
| 7 | 0.778 | 38.89 | 8 | 0.798 | 37.09 | 9 | 0.955 | 17.18 | 10 | 0.924 | 22.41 | 11 | 0.984 | 10. |
| 12 | 0.734 | 42.76 | 13 | 0.975 | 12.74 | 14 | 0.938 | 20.36 | | | | | | |
| CONSTRUCT 2 | | | | | | | | | | | | | | |
| 3 | 0.984 | 10.29 | 4 | 0.883 | 28.05 | 5 | 0.776 | 39.11 | 6 | 0.949 | 18.38 | 7 | 0.851 | 31. |
| 8 | 0.857 | 31.05 | 9 | 0.949 | 18.36 | 10 | 0.968 | 14.51 | 11 | 0.959 | 16.53 | 12 | 0.741 | 42. |
| 13 | 0.964 | 15.46 | 14 | 0.930 | 21.52 | | | | | | | | | |
| CONSTRUCT 3 | | | | | | | | | | | | | | |
| 4 | 0.898 | 26.12 | 5 | 0.756 | 40.85 | 6 | 0.928 | 21.91 | 7 | 0.892 | 26.91 | 8 | 0.878 | 28. |
| 9 | 0.965 | 15.11 | 10 | 0.984 | 10.15 | 11 | 0.945 | 19.08 | 12 | 0.745 | 41.81 | 13 | 0.966 | 14. |
| 14 | 0.950 | 18.29 | | | | | | | | | | | | |
| CONSTRUCT 4 | | | | | | | | | | | | | | |
| 5 | 0.785 | 38.25 | 6 | 0.916 | 23.64 | 7 | 0.821 | 34.84 | 8 | 0.903 | 25.50 | 9 | 0.833 | 33. |
| 10 | 0.928 | 21.80 | 11 | 0.826 | 34.33 | 12 | 0.588 | 53.97 | 13 | 0.915 | 23.77 | 14 | 0.846 | 32. |
| CONSTRUCT 5 | | | | | | | | | | | | | | |
| 6 | 0.892 | 26.90 | 7 | 0.800 | 36.83 | 8 | 0.767 | 39.89 | 9 | 0.633 | 50.73 | 10 | 0.810 | 35. |
| 11 | 0.646 | 49.74 | 12 | 0.419 | 65.24 | 13 | 0.703 | 45.31 | 14 | 0.595 | 53.52 | | | |
| CONSTRUCT 6 | | | | | | | | | | | | | | |
| 7 | 0.853 | 31.41 | 8 | 0.867 | 29.92 | 9 | 0.868 | 29.75 | 10 | 0.953 | 17.63 | 11 | 0.892 | 26. |
| 12 | 0.620 | 51.66 | 13 | 0.922 | 22.74 | 14 | 0.841 | 32.78 | | | | | | |
| CONSTRUCT 7 | | | | | | | | | | | | | | |
| 8 | 0.946 | 18.85 | 9 | 0.885 | 27.75 | 10 | 0.921 | 22.86 | 11 | 0.773 | 39.35 | 12 | 0.719 | 44. |
| 13 | 0.836 | 33.26 | 14 | 0.830 | 33.94 | | | | | | | | | |
| CONSTRUCT 8 | | | | | | | | | | | | | | |
| 9 | 0.876 | 28.79 | 10 | 0.920 | 23.07 | 11 | 0.765 | 40.11 | 12 | 0.715 | 44.40 | 13 | 0.854 | 31.3 |
| 14 | 0.842 | 32.63 | | | | | | | | | | | | |
| CONSTRUCT 9 | | | | | | | | | | | | | | |
| 10 | 0.943 | 19.40 | 11 | 0.949 | 18.29 | 12 | 0.828 | 34.16 | 13 | 0.958 | 16.62 | 14 | 0.970 | 13.9 |
| CONSTRUCT 10 | | | | | | | | | | | | | | |
| 11 | 0.922 | 22.84 | 12 | 0.714 | 44.44 | 13 | 0.959 | 16.38 | 14 | 0.913 | 24.12 | | | |
| CONSTRUCT 11 | | | | | | | | | | | | | | |
| 12 | 0.749 | 41.51 | 13 | 0.979 | 11.65 | 14 | 0.926 | 22.13 | | | | | | |

# APPENDIX 10

# ADDITIONAL CASE STUDIES

APPENDIX 10.1

Area A - Motivation and Pay

A) Manager G (Lansing)

Mr. G, an ex senior foreman, is superintendent of the two assembly plants. He supervises the building, welding, painting and shot blasting of Lansing trucks. He has 170 employees working for him. He is 38 and has been with the company for 22 years.

Mr. G likes achieving targets and the overall challenge of getting the work out. He also enjoys working with people and managing them. He feels that one of the important things about the job is being prepared to adapt and be flexible. One of his real difficulties is in allocating priorities which he feels is both stressful and frustrating.

Promotion is important to him, but he does not want to get higher purely because of status or the name. He sees it as an experience that through greater responsibility will help him learn more and 'broaden' him. He does not want to become stale and he is constantly learning. He feels that self actualisation describes him perfectly.

He sees pay as the main motivator. He is not happy with how he is paid, but accepts this because of the economic difficulties. He also feels obliged to do his best for a company that he has been in a long time and which has been good to him. He has never thought of looking for another job outside and wishes to help the company back on its feet. He does not feel any job insecurity and has not really considered the notion. His attitude is that as he gives everything he can, there is nothing else he can do. If the company cannot afford him, so be it.

The senior managers comments were that Mr. G had commonsense in terms of the shopfloor, but perhaps found it hard to bridge the gap between

being a shopfloor man and being a manager. While he is very committed and ambitious, it was doubtful that he would overcome his shortcomings and get much higher. He was considered, however, to be a hard working manager (rating of 2).

The most obvious reason for this manager continuing to work hard despite the feeling that he is being inadequately paid would superficially be, as he says, because he wishes to contribute in return for the company being good to him. But this is rather limited as it does not explain why he feels this sense of commitment when there are many long serving managers in many companies who have been well treated, who just as easily switch off, rather than on.

A more plausible reason might be the fact he is ambitious and still sees opportunities, at least for personal growth. But the repertory grid analysis suggests additional reasons. His constructs are as follows,

1. Hard working - Not hard working
2. Leads from the front - Doesn't lead from the front
3. Lots of drive - Lacks drive
4. Organised - Unorganised
5. Sharp mind - Dull
6. Good communication - Cannot communicate
7. Good engineer - Bad engineer
8. Trustworthy - Untrustworthy
9. Presents case well - Unable to present case
10. Gaining knowledge - Lacking
11. Broader experience - Lack of experience
12. Good determination - Lack of determination

Skill and ability constructs predominate (constructs 4,5,6, 7,9,11), although the next most numerous category is positive work values. While there is only one construct actually categorised as personal developmental (construct 10), the manager's emphasis on abilities and skills would, nevertheless, seem to reflect his comment in the interview that self actualisation was a good description of his approach.

Component Scores

Manager G (Lan.)

| Component 1 | |
|---|---|
| Construct | Score |
| 1 | .881 |
| 8 | .855 |
| 5 | .832 |
| 3 | .828 |
| 10 | .788 |
| 11 | .727 |
| 4 | .724 |
| 7 | .693 |
| 12 | .678 |
| 9 | .573 |
| 6 | .522 |
| 2 | .471 |

Manager Z (San.)

| Component 1 | |
|---|---|
| Construct | Score |
| 5 | -.666 |
| 2 | -.753 |
| 3 | -.774 |
| 7 | -.779 |
| 9 | -.789 |
| 6 | -.801 |
| 4 | -.839 |
| 8 | -.842 |
| 1 | -.886 |
| 10 | -.922 |
| 11 | -.941 |
| 12 | -.943 |

Figure 41

Manager G (Lansing)

Distance between elements

| Element | E1 | E10 | E12 |
|---|---|---|---|
| 1 | -- | .599 | .126 |
| 2 | .583 | .425 | .597 |
| 3 | .599 | .732 | .586 |
| 4 | .923 | 1.384 | .914 |
| 5 | 1.123 | 1.467 | 1.072 |
| 6 | .807 | 1.080 | .777 |
| 7 | 1.285 | 1.614 | 1.227 |
| 8 | .904 | .889 | .878 |
| 9 | 1.070 | 1.400 | 1.032 |
| 10 | .599 | -- | .613 |
| 11 | .528 | 1.030 | .513 |
| 12 | .126 | .613 | -- |

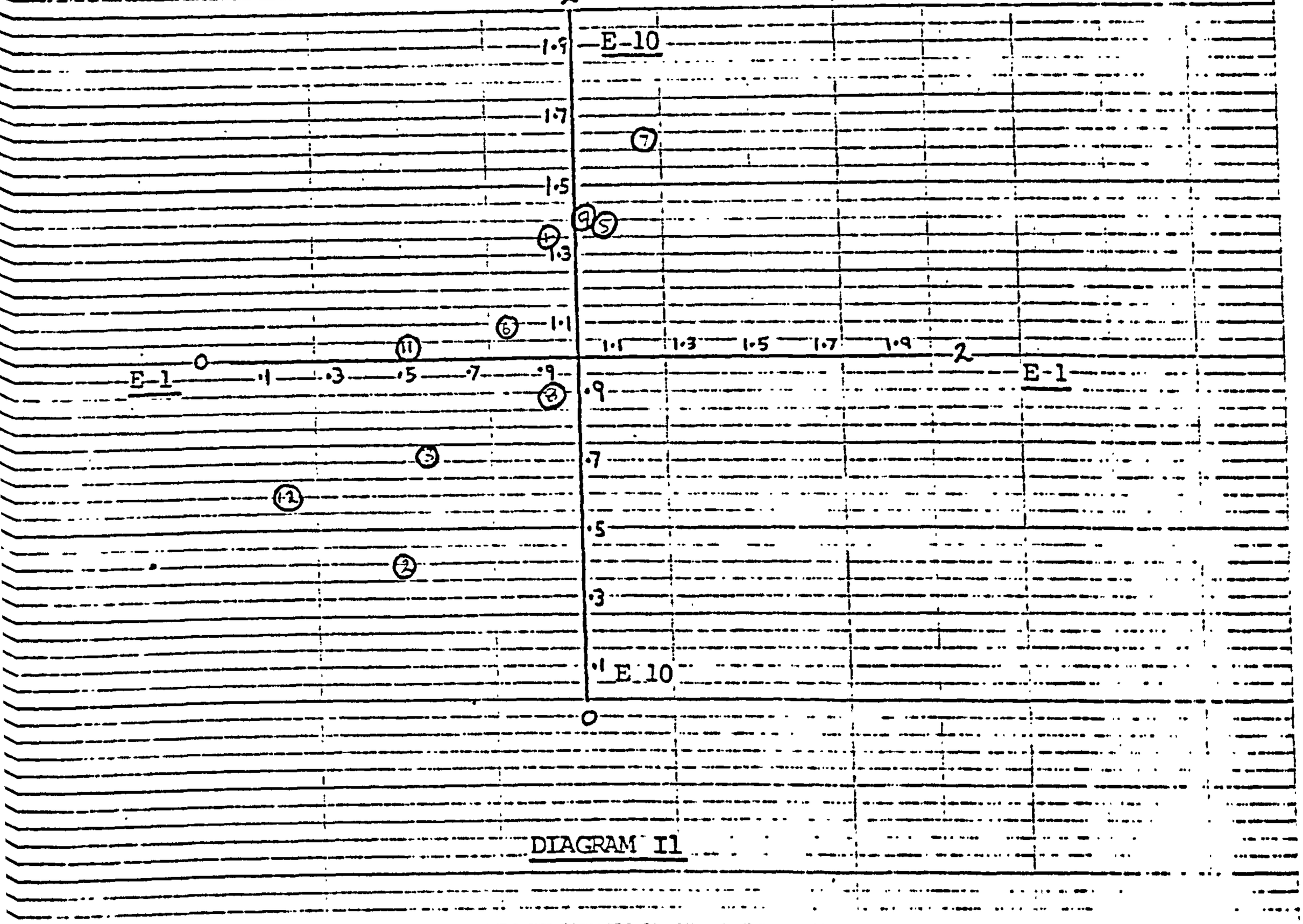
Table 16a

Relations between constructs and self elements

| Construct | E1 | E10 | E12 |
|---|---|---|---|
| 1 | 28.1 | 40.9 | 38.3 |
| 2 | 52.0 | 57.3 | 53.4 |
| 3 | 41.2 | 50.7 | 44.1 |
| 4 | 77.0 | 39.0 | 78.1 |
| 5 | 60.5 | 47.2 | 61.1 |
| 6 | 76.7 | 47.8 | 75.9 |
| 7 | 41.2 | 54.1 | 39.0 |
| 8 | 48.1 | 43.7 | 48.7 |
| 9 | 80.3 | 46.1 | 78.8 |
| 10 | 58.4 | 38.7 | 59.8 |
| 11 | 56.5 | 39.2 | 56.6 |
| 12 | 41.1 | 57.3 | 43.3 |

Table 16b

## DISTANCE BETWEEN ELEMENTS



## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

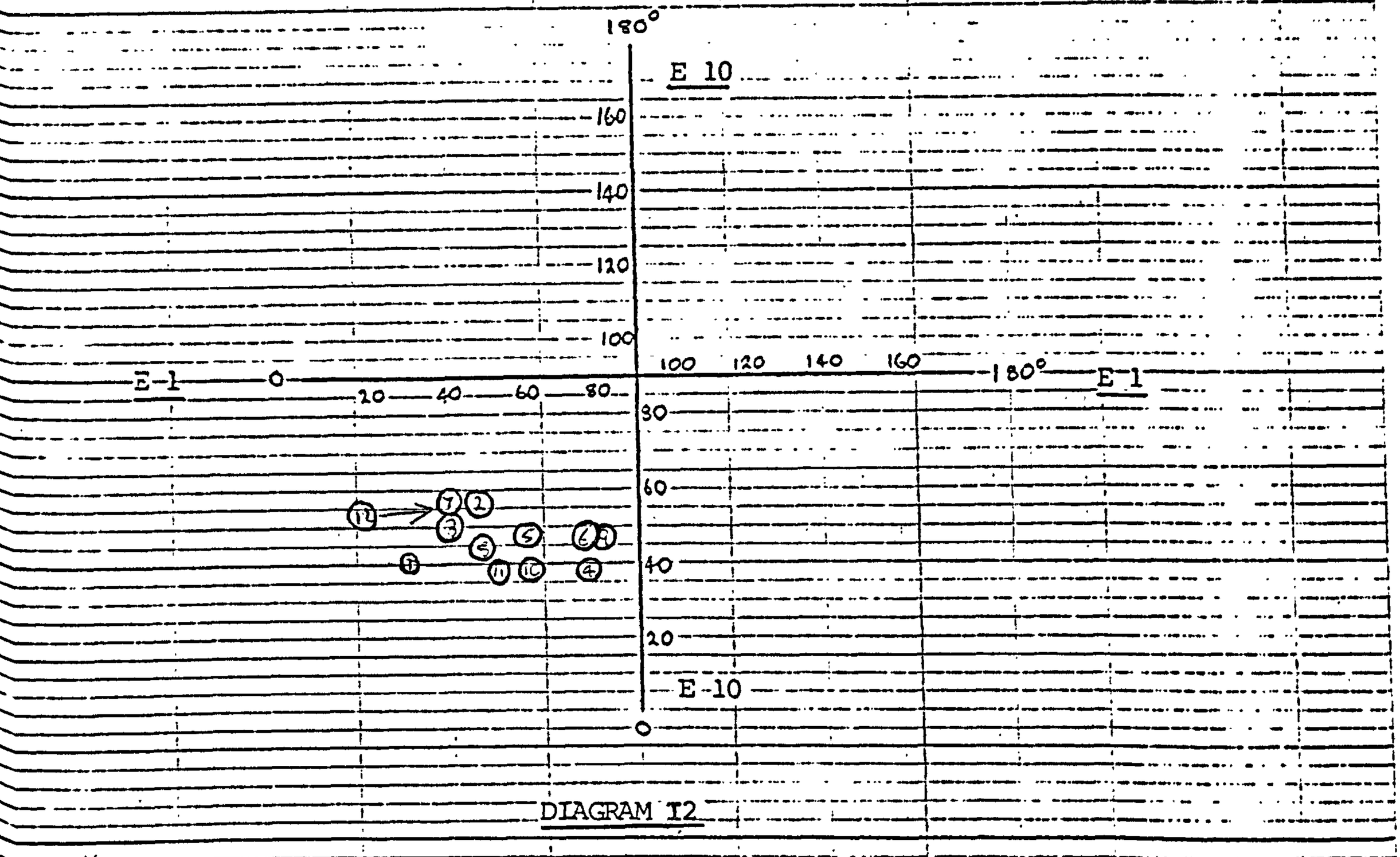



DIAGRAM I2

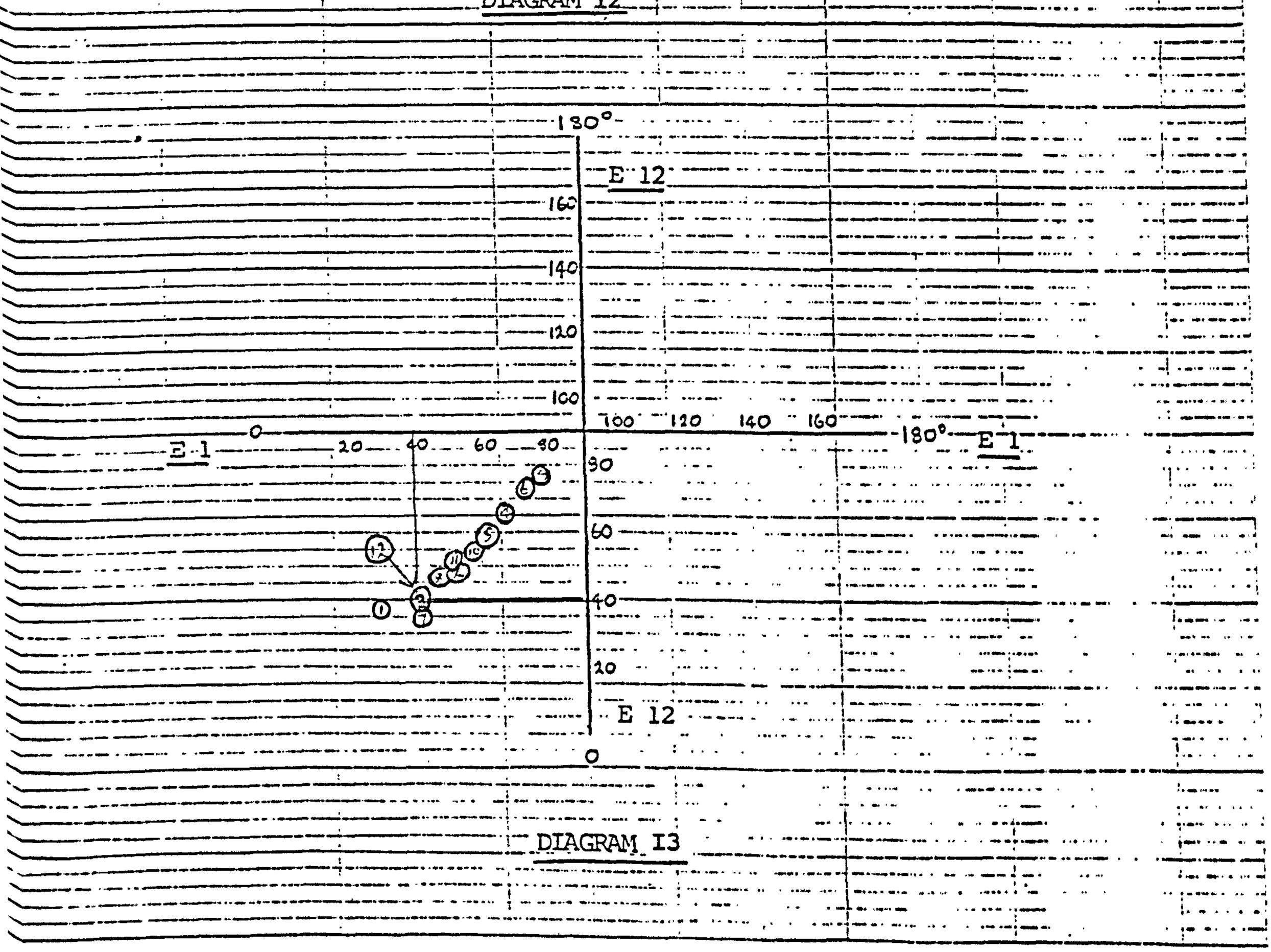



DIAGRAM I3

Moreover, on Component 1 (figure 41), although construct 10 gaining knowledge, and C5 sharp mind, appear in his top five constructs, construct 1 hard work, is first and construct 3 lots of drive, is also included. The other construct in his top five is C8 trustworthy. However, as Component 1 accounts for only 52% of the variance it is worth, in this case, looking at Component 2 which accounts for 20% of the variance. Here, on the same dimension as E1 and E12, he places C12 good determination, C2 leads from the front, C1 hard work, and C3 lots of drive, which are opposite to C9 presents case well, C6 good communicator, C4 organised, and C10 gaining knowledge. These latter four are on the same dimension as E10, what the manager would ideally like to be. Thus his present self image is one of a hard working manager with lots of drive which must go some way towards accounting for his continued hard work.

If we look at the construct/element distances (table 16b), we find C1 is the shortest both in relation to E1 (28.1) and E12 (38.3). Diagram I3 shows a very close agreement for E1/E12 which would confirm his lack of organisational frustration. His element distances are less straightforward, but the plot shows the fairly close agreement between E1 and E10 in relation to E12, E2 and E3 (diagram I1).

B) Manager Z (Sandvik)

Mr. Z is Financial Controller responsible for both the management accounting and financial accounting of the company. He has 22 staff. He is 33 and has been with the company for 2 years.

Mr. Z believes his role is central to the control of the business. It has been underestimated by the company in the past and he has spent his time at the company trying to integrate and improve outdated financial systems. He has found the challenge of trying to implement new systems stimulating and expects this work to continue for another 12 months. This is not entirely what he is meant to be doing and would prefer some more financially analytical work. Nevertheless, he feels that implementing the new systems is good experience.

He feels he pressurises himself tremendously. He does a 60 hour week which is more than anyone else he knows. He is immensely ambitious. He feels he is at an age when he must make quick advances. But he does not feel he can advance much further in this company. He has had to move location 3 times in the past 7 years for promotion and probably expects to do so again.

He needs to constantly achieve, to drive himself forward. He likes to be challenged, hates boredom and needs to be constantly working. But he feels strongly that effort should be rewarded adequately and pay is very important to him.

Nevertheless, he feels he has a high marketability and could earn £10K more outside Sandvik. His friends are earning much more than him and this frustrates him. This is eased a little by the knowledge that they do not have his job satisfaction. He expects a large pay rise within about 9 months time. If he does not get this he will leave the company.

The assesment of the external assessor is that Mr. Z is a very hard worker (rating of 1), who is possibly underutilised. He has been

getting the financial systems in some order and is only now just starting to do his controlling function. He is showing he has much ability. He is ambitious, but has to be watched in case he burns himself out.

Thus, despite not actually being properly materially rewarded for his efforts at the moment and despite the fact the promotion opportunities are uncertain, the manager is still one of the hardest working in the company. One might argue that he is merely deferring gratification as he does expect to be rewarded in the future. But there must be something more to someone who works very hard for indeterminate rewards, some time away.

To some extent the answers are contained in the interview. One is job satisfaction, including the mental stimulation. Another would seem to be his need to be constantly progressing and achieving. The repertory grid should confirm this driving nature of his, but it should also give us clues as to why this should be the case if the arguments about self concept being of importance, are relevant. He does drive himself, so the argument goes, because he holds certain mental pictures of himself very strongly.

Mr Z's constructs are as follows;

1. Hard working - Not hard working
2. Analytical - Emotional
3. Intellectual ability - Thick
4. Well balanced - Loner
5. Considerate - Inconsiderate
6. Realistic - Unrealistic
7. Broad minded - Narrow
8. Ambitious/career driven - Drifting
9. Smartly dressed - Sloppy
10. More responsible, pressurised and productive - unfulfilled
11. Committed to job - Carefree
12. Positive Cynicism - Negative Cynicism

Manager Z (Sandvik)

Distance between elements

| Element | E1 | E10 | E12 |
|---|---|---|---|
| 1 | -- | .216 | .196 |
| 2 | .795 | .915 | .757 |
| 3 | .805 | .808 | .712 |
| 4 | .364 | .469 | .346 |
| 5 | 1.742 | 1.862 | 1.728 |
| 6 | .664 | .778 | .623 |
| 7 | 1.324 | 1.431 | 1.256 |
| 8 | .430 | .431 | .402 |
| 9 | 1.357 | 1.444 | 1.345 |
| 10 | .216 | -- | .292 |
| 11 | .264 | .397 | .329 |
| 12 | .196 | .292 | -- |

Table 17a

Relations between constructs and self elements

| Construct | E1 | E10 | E12 |
|---|---|---|---|
| 1 | 24.5 | 29.0 | 33.3 |
| 2 | 50.1 | 50.0 | 45.3 |
| 3 | 58.2 | 55.8 | 49.9 |
| 4 | 34.5 | 33.0 | 35.0 |
| 5 | 31.2 | 40.0 | 45.0 |
| 6 | 24.6 | 32.7 | 30.7 |
| 7 | 40.3 | 39.0 | 43.5 |
| 8 | 44.7 | 47.1 | 33.4 |
| 9 | 46.8 | 35.0 | 45.6 |
| 10 | 39.2 | 36.4 | 30.9 |
| 11 | 38.7 | 33.1 | 33.5 |
| 12 | 28.4 | 19.0 | 26.2 |

Table 17b

## DISTANCE BETWEEN ELEMENTS

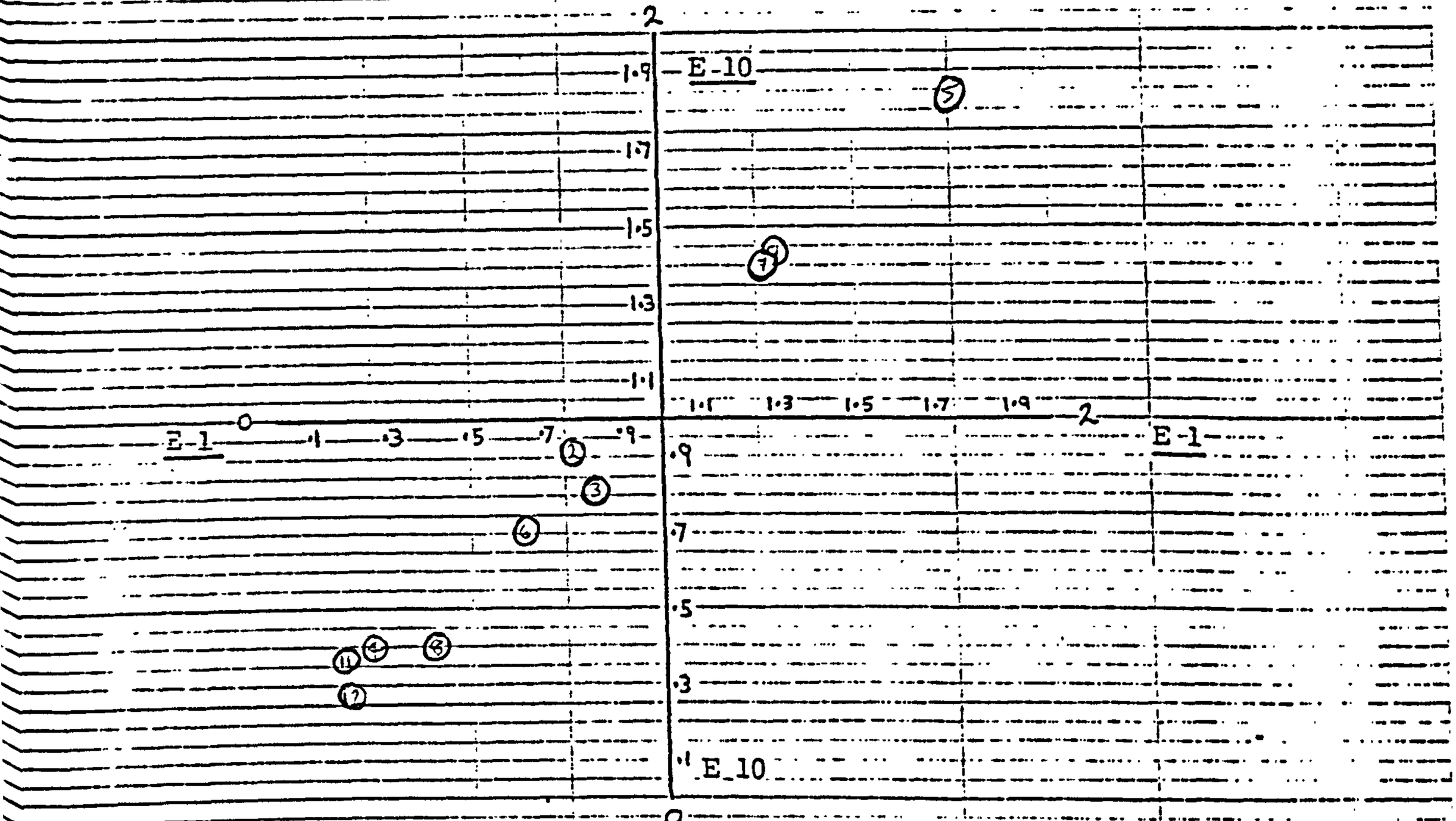
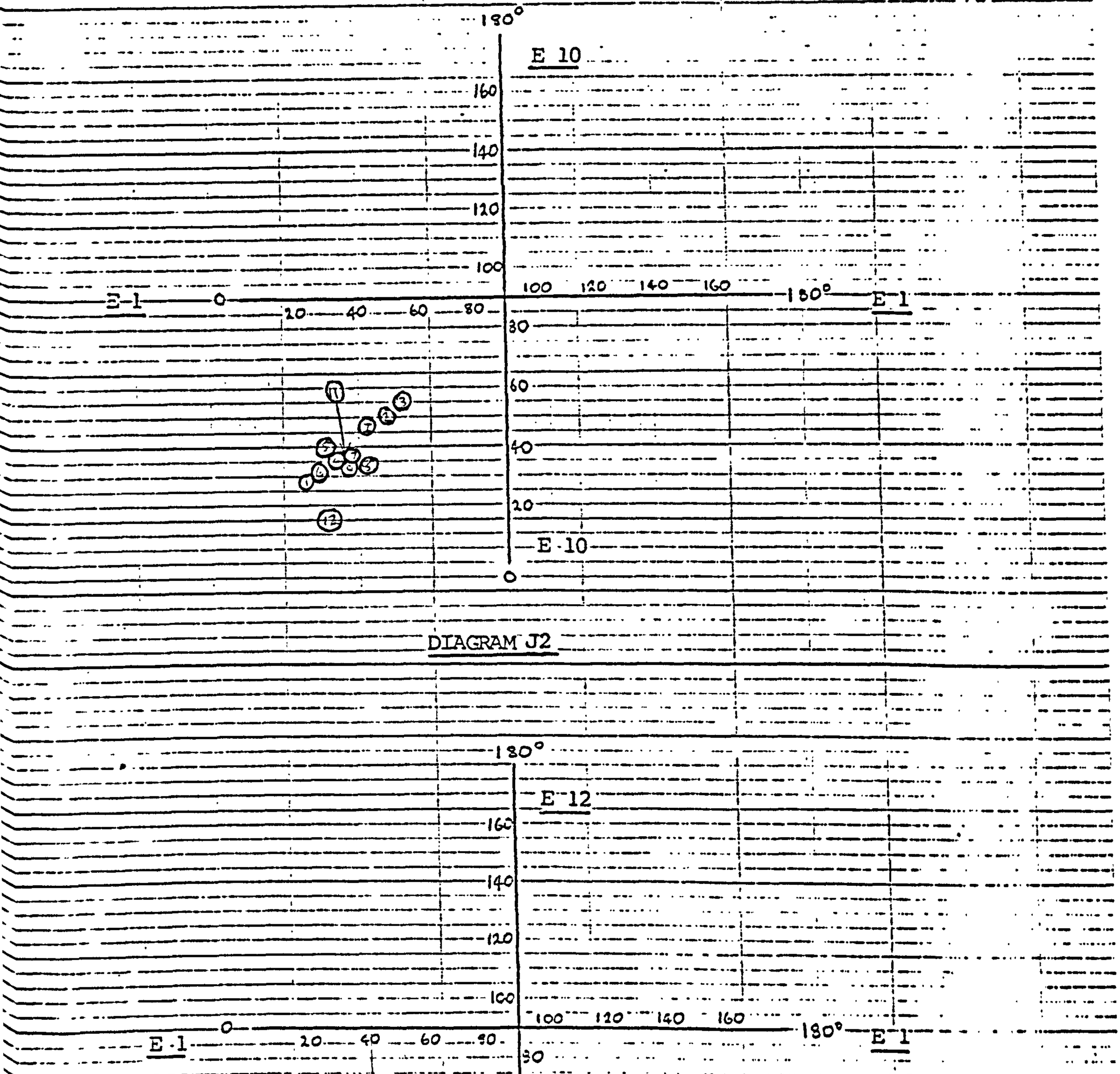



DIAGRAM J1

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS



On Component 1 (figure 41) which accounts for 70% of the variance, the manager, in fact, puts construct C12 postive cynicism, first, which would not seem to be a particularly important construct in terms of the arguments of the thesis. Nevertheless, his next four constructs are, C11 committed to the job, the rather composite construct, C10 more responsible, pressurised and productive, C1, and C8 ambitious/career driven. Moreover, his construct element distances, (table 17b), show that C1 is the shortest on E1 (24.5), the second shortest on E10 (29.0) and the third shortest on E12 (33.3). If we look at the distances between the elements (table 17a) we see that the manager has short distances between his three selves E1, E10 and E12 and diagram J1 shows tight E1/E10 and tight E1/E12 bunching of the constructs. Thus the manager has high organisational and self esteem. Interestingly, table 17a shows some distance between himself and his boss's (E1/E2 .795; E1/E3 .805; E10/E2 .915 and E10/E3 .808) which is highlighted in the diagram J1. Although this manager gets on with his boss's, it would seem that you do not necessarily need to identify with them to be hard working.

APPENDIX 10.2

Area B - Hard Work Discrepancy

A) Manager C (Lansing)

Mr. C is manager of the fabrication and assembly factories. He is the immediate manager of Mr G. and is ultimately responsible for 175 men. He is 58 and has been with the company for 32 years.

Mr. C enjoys the variety of his job and overcoming immediate problems. He is happy with his pay and does not feel that pay was ever a motivator for him. Although promotion was important in the past it is less so now. Nevertheless, his main objective has been to get to a position of control. He has never visualised an actual hierarchical position that he wanted to achieve, but he feels he has always pushed himself so he could get to a position of being in charge. He feels that challenge and job satisfaction are the most important criteria for him now.

The senior managers' feelings about Mr. C are that he is a good man for a crisis, but he lacked the ability to follow through and to coordinate. He enjoys coping rather than managing and runs the assembly operations in swashbuckling style. He was not seen as particularly hard working (rating of 4) but had a 'natural cunning'. Mr. C rated himself at 1 for hard work.

The obvious reason why there should be this wide discrepancy between the external hard work rating and the self rating, assuming Mr. C was not applying his natural cunning, is that there is some misperception, either by the external raters, or by Mr. C himself, of his effort. The interview material suggests that the misperception might be nore on Mr. C's part. First of all he is 58 and it is quite possible that age has slowed him down without him knowing it. Secondly, an important motivator, promotion, is now of less significance, but this may mean that he no longer has a worthwhile goal to aim for. His repertory grid, however, suggests additional factors.

His constructs are as follows;

1. Hard working - Not hard working
2. Self motivated - Lacks motivation
3. Strong character - Weak character
4. Reliable - Unreliable
5. Trustworthy - Not trusted
6. Wide scope - Limited ability
7. Brief - Verbose

Mr. C could only produce six constructs. None of these could be considered to be particularly proactive, except, perhaps for 3. strong character. On Component 1 (figure 42) which accounts for 84% of the variance, C1 is second from last although it is part of a closely bunched grouping of the main constructs. Even so, it would not seem to be particularly associated with construct 2 self motivated, which is his first construct on Component 1. If we look at his relations between constructs and self elements (table 18b), the C1/E1 distance at 40.9 is the greatest of all the constructs on E1, and on E10 it is only second from last. This would seem to suggest that although the manager might rate himself highly on hard work, hard work, in fact has a low priority in his construct system. One might conclude from this, in view of the arguments that have gone before, that the external rating of hard work is more likely to be nearer to actuality.

Nothing is greatly revealed by the manager's distance between element scores (table 18a). He seems to be high on self esteem (E1/E10 .292) and on organisational esteem (E1/E12 .277), although the latter may be the problem. If we return to table 18b the shortest construct distance on E12 is construct 4 (31.6) which is 'reliable' and which is hardly a description the external managers used of Mr. C. Thus one can see that C1 hard work, which has the third shortest distance on E12 (44.0) could equally be misperceived by this manager. He seems to be not being told about, or not taking notice of, the organisational image he portrays.

Component Scores

Manager C (Lan.)

| Component 1 | |
|---|---|
| Construct | Score |
| 7 | -.393 |
| 1 | -.948 |
| 6 | -.970 |
| 4 | -.978 |
| 3 | -.983 |
| 5 | -.984 |
| 2 | -.986 |

Manager A (Sandvik)

| Component 1 | | Component 2 | | Component 3 | |
|---|---|---|---|---|---|
| Construct | Score | Construct | Score | Construct | Score |
| 8 | .917 | 10 | .694 | 6 | .376 |
| 6 | .890 | 5 | .511 | 7 | .286 |
| 3 | .835 | 3 | .442 | 2 | .235 |
| 12 | .828 | 6 | .169 | 5 | .197 |
| 5 | .823 | 8 | .107 | 3 | .124 |
| 11 | .805 | 1 | .050 | 4 | .103 |
| 9 | .770 | 12 | -.060 | 10 | .090 |
| 10 | .690 | 11 | -.253 | 9 | -.008 |
| 2 | .616 | 7 | -.419 | 12 | -.105 |
| 7 | .611 | 9 | -.432 | 8 | -.220 |
| 4 | .598 | 4 | -.592 | 11 | -.506 |
| 1 | .543 | 2 | -.726 | 1 | -.631 |

Figure 42

Manager C (Lansing)

Distance between elements

| Element | E1 | E10 | E12 |
|---|---|---|---|
| 1 | -- | .292 | .277 |
| 2 | .470 | .226 | .413 |
| 3 | .609 | .339 | .526 |
| 4 | .470 | .226 | .413 |
| 5 | 1.861 | 1.838 | 1.694 |
| 6 | .229 | .311 | .311 |
| 7 | 1.703 | 1.574 | 1.498 |
| 8 | .454 | .189 | .394 |
| 9 | 1.045 | 1.045 | .872 |
| 10 | .292 | -- | .277 |
| 11 | .000 | .292 | .277 |
| 12 | .277 | .277 | -- |

Table 18a

Relations between constructs and self elements

| Construct | E1 | E10 | E12 |
|---|---|---|---|
| 1 | 40.9 | 19.0 | 44.0 |
| 2 | 34.1 | 12.5 | 49.0 |
| 3 | 28.6 | 9.3 | 35.2 |
| 4 | 20.3 | 17.2 | 31.6 |
| 5 | 31.0 | 14.6 | 47.5 |
| 6 | 39.4 | 12.2 | 50.4 |
| 7 | 40.5 | 73.3 | 48.6 |

Table 18b

DISTANCE BETWEEN ELEMENTS

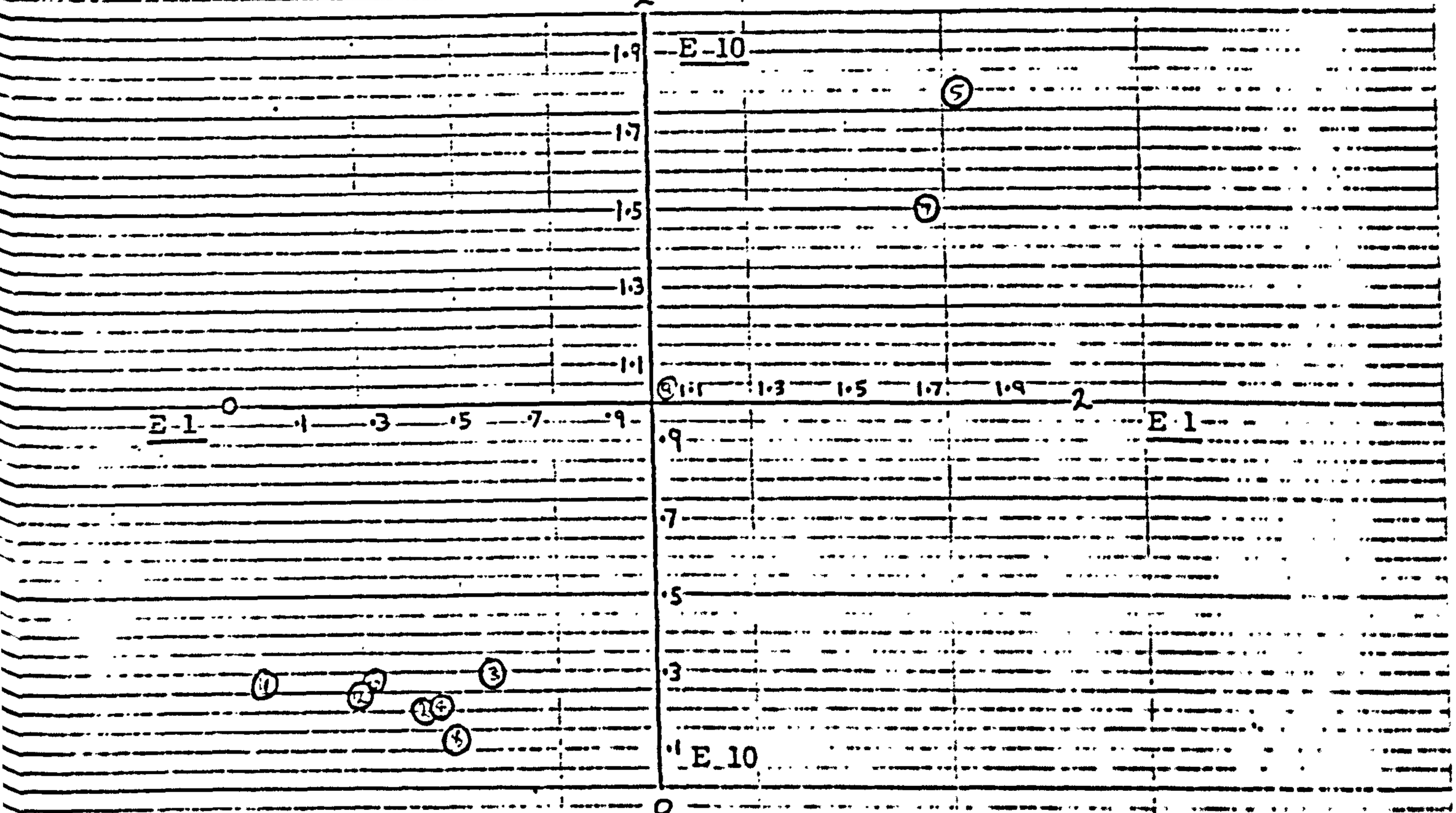



DIAGRAM K1

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

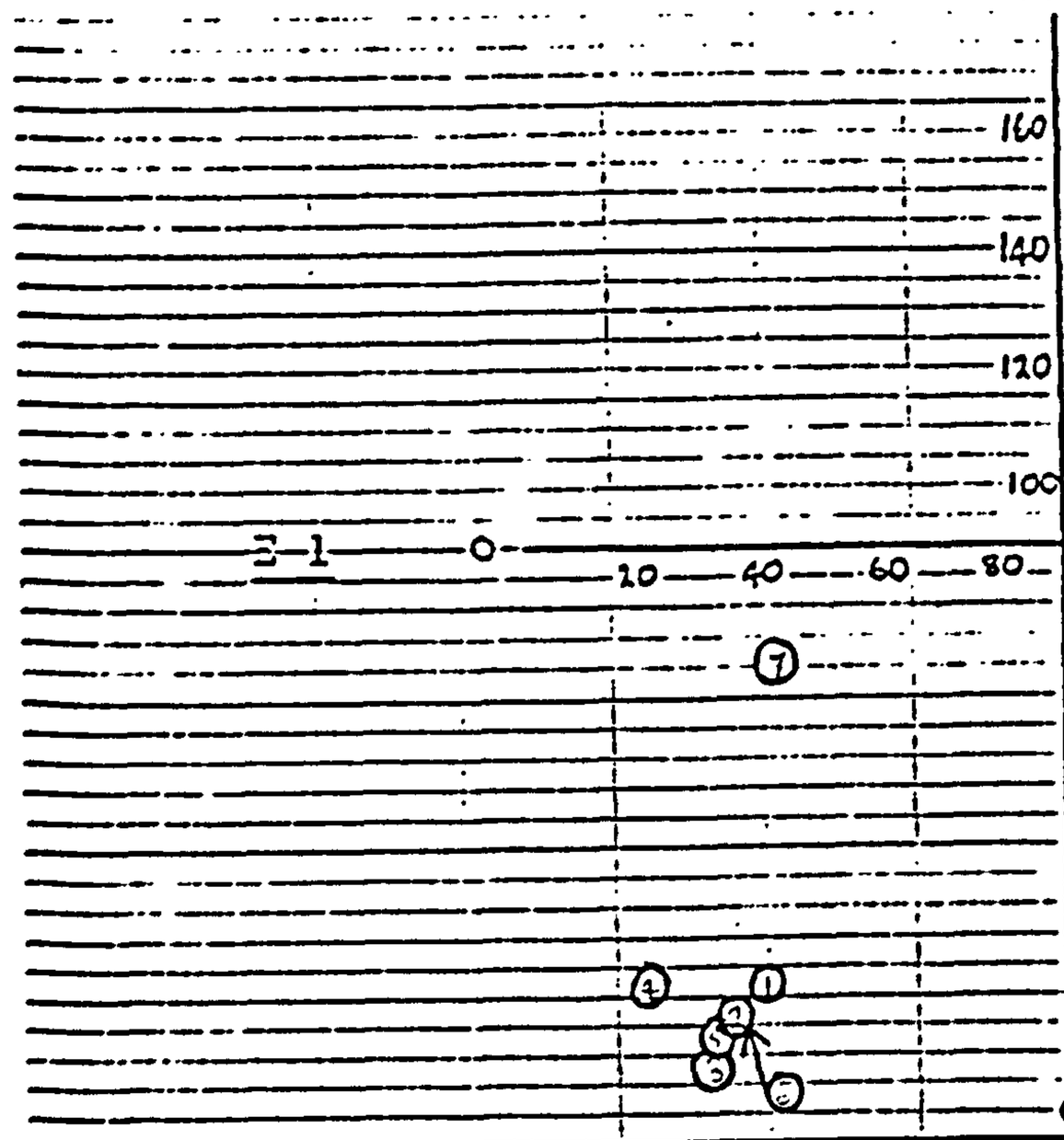



DIAGRAM K2

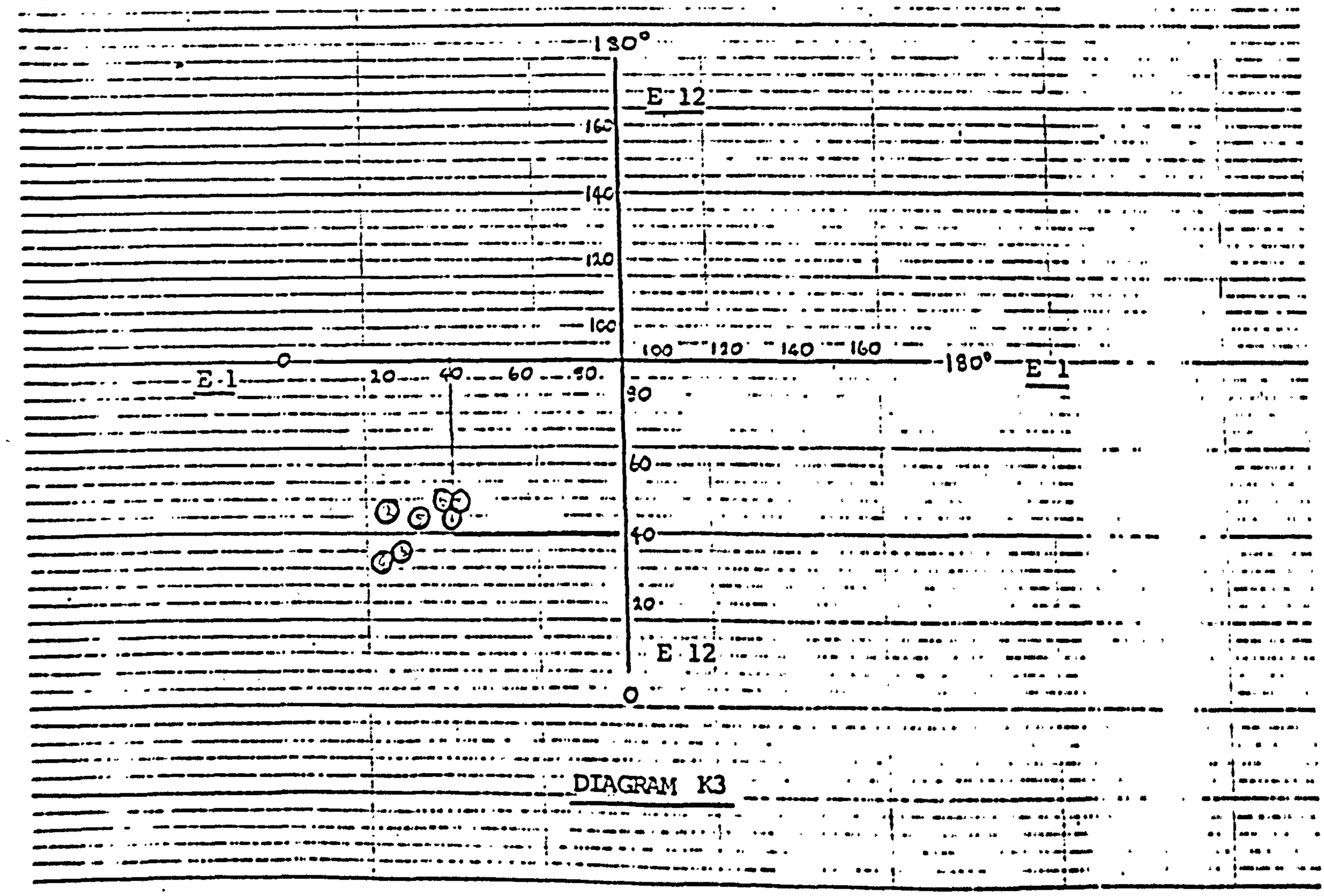



DIAGRAM K3

B) Manager A (Sandvik)

Mr. A is the Production Manager for metalworking products. He is responsible for 52 production workers and foremen. He is 58 and has been with the company for 16 years.

He enjoys his job and often works long hours. He feels he works hard and expects the same from others. He likes managing people and getting the best out of them and he enjoys dealing with people more than the technical side of the job. He saw 'leadership' as the best way to motivate people, which was better than any bonus scheme.

He is promotion conscious. He recently failed to get promotion to works manager at Sandvik and this has depressed him. He feels, however, that this has not affected his effort and he has got over his disappointment now. In fact, he felt that knowing he was not going to get further had come as a release to him and he now felt 'content'.

He felt he was a very proud man. He liked to do well, and he got a sense of achievement from doing a good job. He felt that some people considered that he ran the production operation as if it was his own firm.

He also felt very concerned that managers and workers lacked trust between each other in the company. He thought that management in the company, for the most part, because of its marketing orientation, did not have a feel for the workforce. If he had to decide between sympathising with management or sympathising with the workforce he would side with the workforce. The company did not, in general, value enough its employees.

The external manager's assessment was that Mr. A was an intelligent man who came across as being thick. He was status conscious (although Mr. A said nothing of great significance about status in the interview). He had come down in the organisation, but he was a reasonable manager. He could get emotionally involved and depressive. He was rated at 3 for hard work. Mr. A gave himself 1 for hard work.

Mr. A's constructs on the repertory grid are as follows,

1. Hard working - Not hard working
2. Knowledgeable - Remote
3. Enthusiastic - Isolated
4. Sociable - Unsociable
5. Dynamic - Negative
6. Effective manager - Not effective
7. Better leader - Poor leader
8. Positive - Hesitant
9. Problem solver - Does not see facts
10. Contented - Unhappy
11. Foreseeing - Restricted
12. Persuades - Drives

Mr. A's main emphasis is on relations with people constructs (numbers 4,6,7, & 12) which would reflect the view of himself given in the interview of a motivator and leader. This is also reflected in Component 1 (figure 42), where construct 6. effective manager, and 12. persuades, appear in his top five constructs. The others are positive, enthusiastic and dynamic. Construct 1 is last. However, Component 1 only accounts for 57% of the variance. But even on Component 2 (19% of the variance) construct 1 does not stand out. In this case, Component 3 is revealing. Here construct 1 is diametrically opposed to constructs C6 effective manager, and C7 better leader. Moreover, table 19b shows that C1 has the longest distance both on E1 (67.7) and E10 (68.8), and effective manager (C6) is shortest (E1, 23.9, and E10 27.5).

Thus, this would seem to imply two things. The first is that in view of the low importance given to construct 1 by Mr. A, the external assessors rating for hard work would seem to be more accurate. Secondly, if the manager is not particularly hard working, the reason, as one might have deducted from the interview and the comments of the external assessor, that Mr A. failed to get promotion and was now content, would not, necessarily, seem to be the case. It would seem that this manager sees himself as an effective manager and hard work is not something he associates with this, or values highly.

Manager A (Sandvik)

Distance between elements

| Element | E1 | E10 | E12 |
|---|---|---|---|
| 1 | -- | .158 | 1.264 |
| 2 | .282 | .324 | 1.166 |
| 3 | .851 | .836 | 1.245 |
| 4 | .559 | .623 | .917 |
| 5 | 1.312 | 1.359 | .522 |
| 6 | .536 | .559 | .983 |
| 7 | 1.398 | 1.442 | 1.111 |
| 8 | .403 | .487 | 1.136 |
| 9 | 1.576 | 1.615 | .947 |
| 10 | .158 | -- | 1.332 |
| 11 | .952 | .965 | 1.041 |
| 12 | 1.264 | 1.332 | -- |

Table 19a

Relations between constructs and self elements

| Construct | E1 | E10 | E12 |
|---|---|---|---|
| 1 | 67.7 | 68.8 | 100.0 |
| 2 | 45.4 | 46.7 | 102.9 |
| 3 | 43.1 | 43.3 | 140.0 |
| 4 | 58.2 | 57.9 | 96.2 |
| 5 | 39.9 | 39.5 | 139.5 |
| 6 | 23.9 | 27.5 | 130.9 |
| 7 | 40.8 | 45.6 | 88.3 |
| 8 | 40.9 | 39.1 | 146.9 |
| 9 | 33.0 | 33.6 | 120.9 |
| 10 | 50.2 | 50.3 | 137.4 |
| 11 | 51.6 | 50.1 | 123.6 |
| 12 | 47.6 | 37.0 | 146.8 |

Table 19b

DISTANCE BETWEEN ELEMENTS

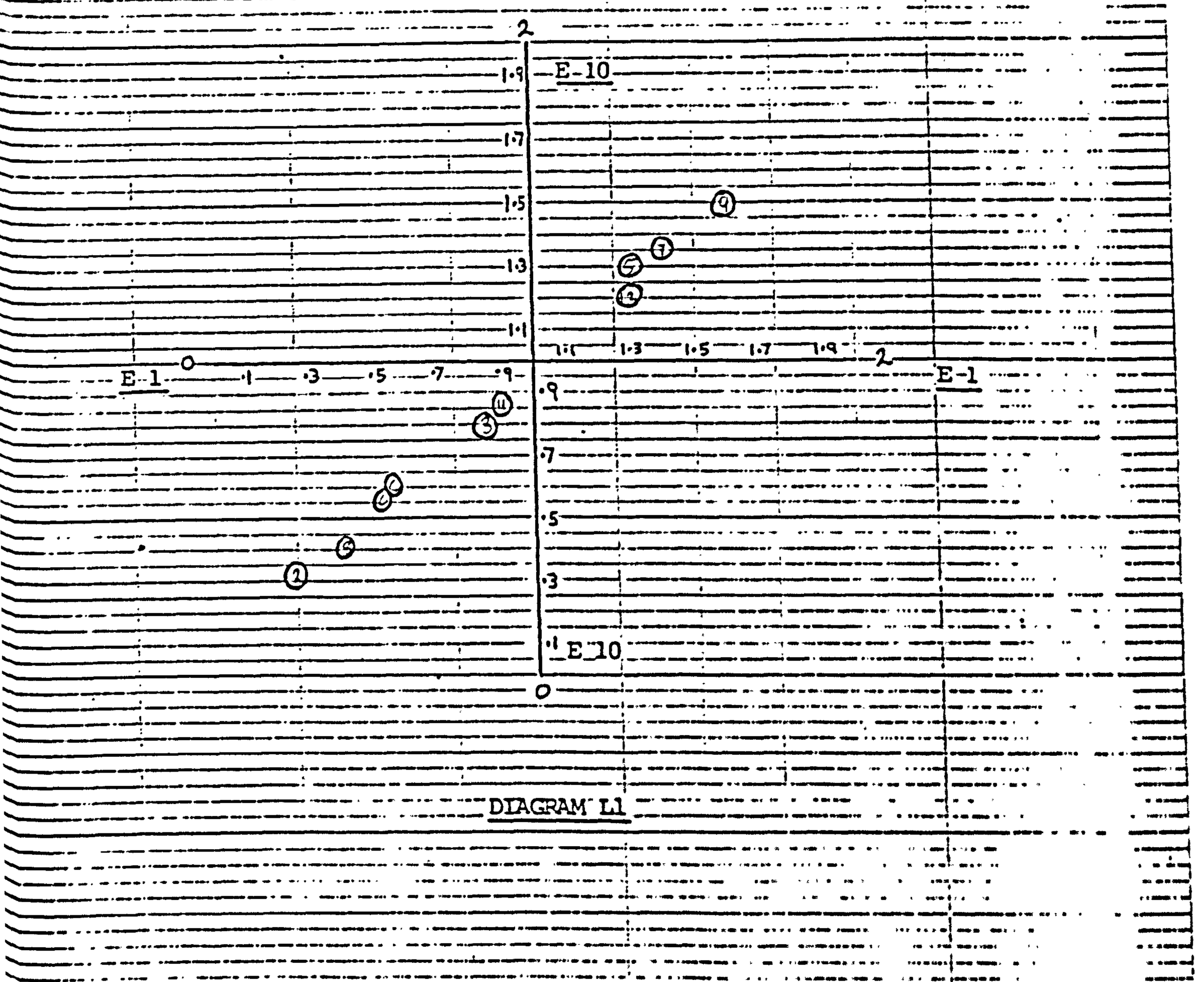



DIAGRAM L1

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

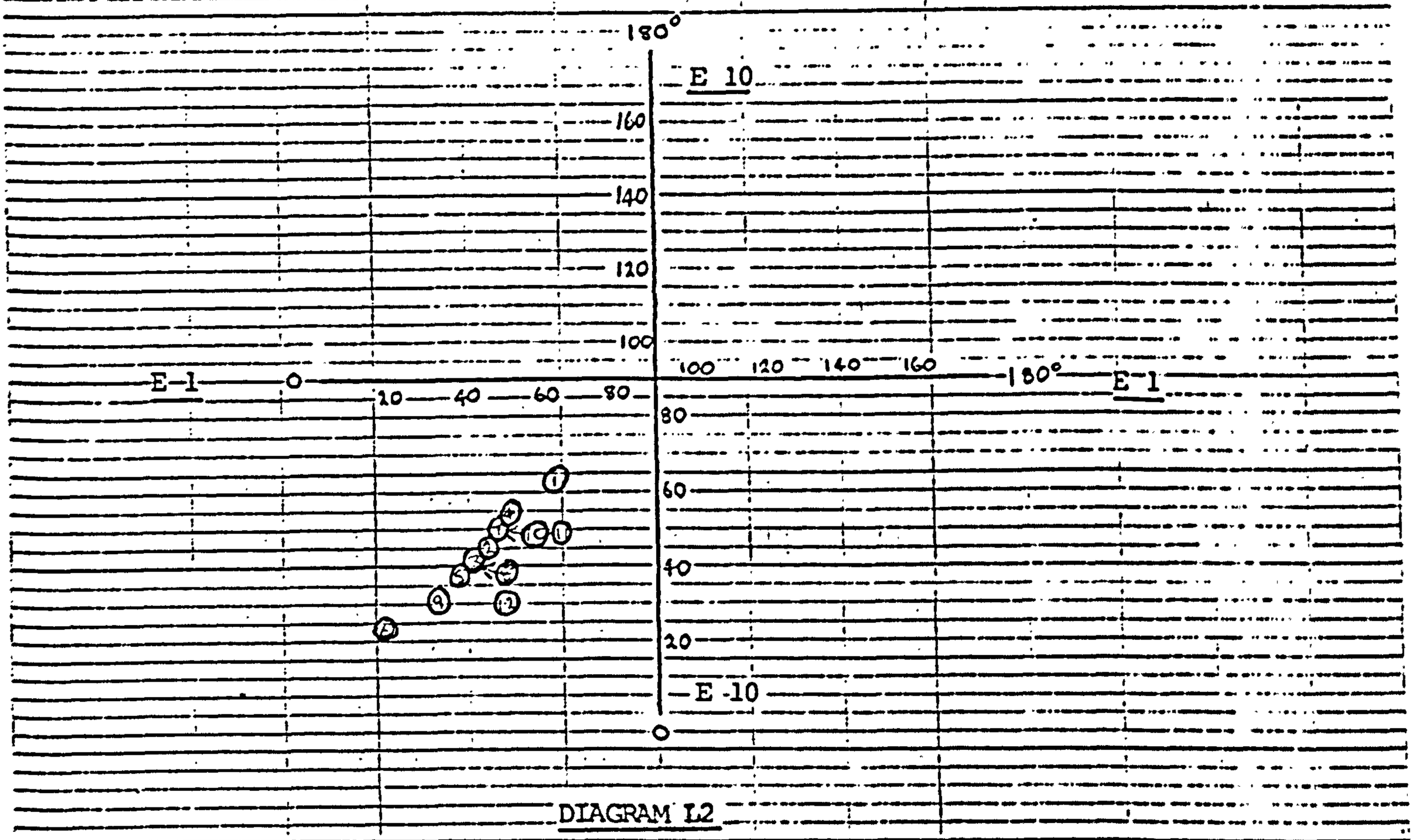



DIAGRAM L2

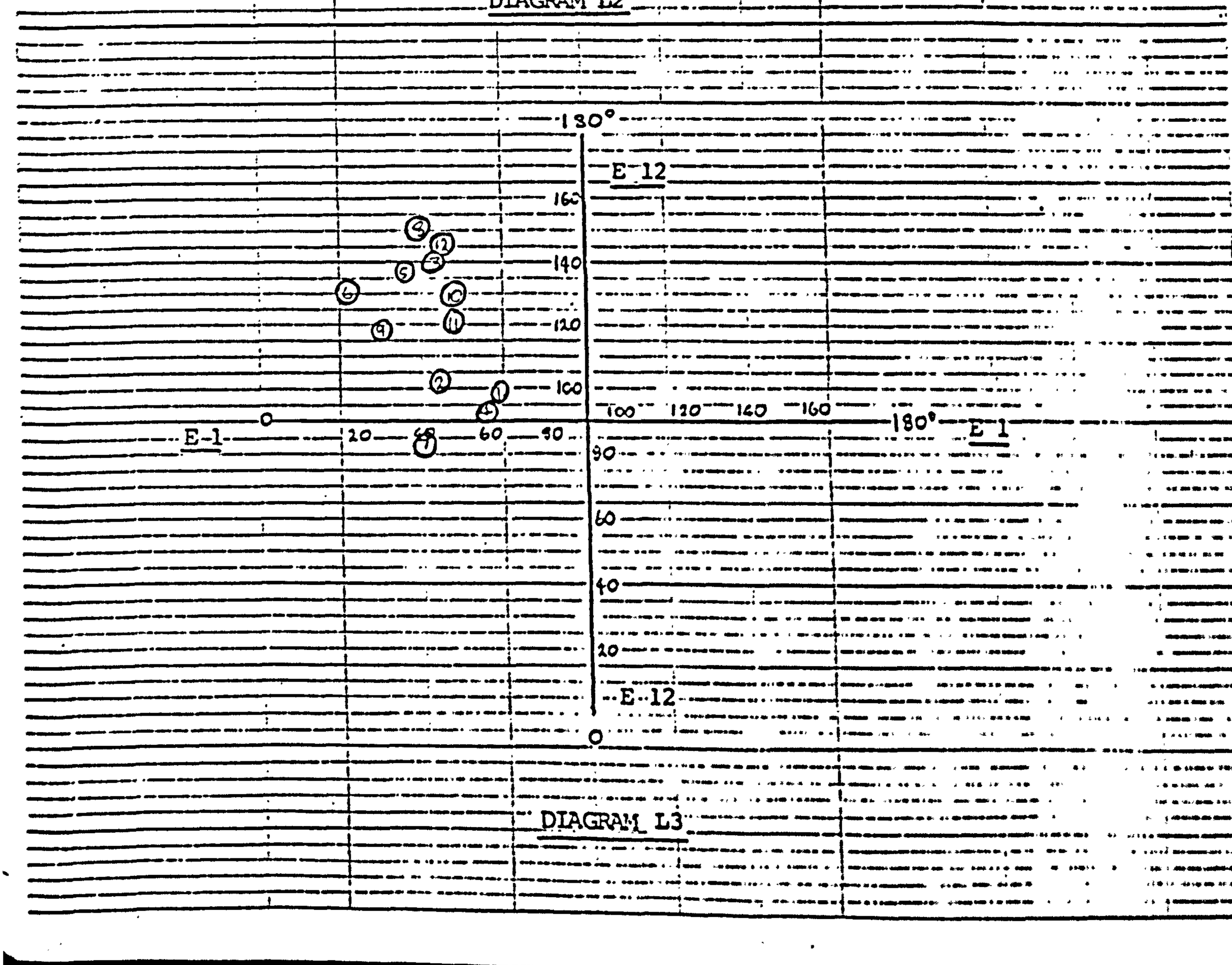



DIAGRAM L3

The grid analysis, however, reveals something more than this. If we look at the element distance table (table 19a), while Mr. A is high on self esteem (E1/E10 .158), his organisational esteem is low (E1/E12 1.264) and the shortest distance on E12 is between E12 and E5, subordinate, bad performer. If we return to the construct/element distances (table 19b) we find the majority of the constructs with a score of over 90 which means they are on the negative side of the construct. Thus, Mr. A feels the organisation sees him as very hesitant and isolated, negative, ineffective, restricted and unhappy. It would seem unlikely that this would not also have some effect on how hard he works. The analysis would seem to suggest that either his self rating of 1 for hard work was a lie, which could be due to many reasons, or he is deluding himself.

APPENDIX 10.3

Area C - Low Hard Work Ratings

A) Manager S (Sandvik)

Mr. S is Manager for Machine Systems responsible for looking at computer applications to machine and production processes. He is 41 and has been with the company for 10 years.

Mr. S enjoys dealing with new technology and explaining it to others and also introducing it into the company. Nevertheless, he is someone who much more prefers analysing problems. He does not like dealing with people, managing them or listening to their personal problems.

While he enjoys aspects of the job, he does not feel he is appropriate for it and thinks his abilities could be better employed elsewhere. He also feels that senior management are not fully committed to the introduction of new systems, or that more immediate managers understand the capabilities of the new technology.

Mr. S is not interested in promotion, nor line management. He feels that maintaining his freedom to operate in the way he wants to within the constraints of his job is what motivates him. He will, consequently, do jobs for people so that he can preserve his own freedom.

Pay is not important either. He was made redundant 10 years ago which was a traumatic experience which completely changed his approach to work. Before that he had been promotion conscious and dependent on employment. Since then he has striven to free himself from dependence, including financial dependence. Nevertheless, he likes to be stimulated and comes to work to pursue things he enjoys. He felt that if he was pushed harder, he would work harder.

The external manager's comments, which confirmed that the manager was being reasonably sincere, were that he was an 'enigma'. He is very

intelligent with wide knowledge, but has radical and shocking views. He is a nice, kind man who reflects 'the good life'. But he is well respected and has the support of his boss. He was rated at 4 for hard work. His self rating is 5.

From the interview the reasons for this manager not being particularly hard working would seem obvious. Neither pay nor promotion are important to him. He would seem to share few of the organisation's values, does not feel particularly suited to his job, and only puts effort into things he enjoys, or that will maintain his independence. While the repertory grid can add few additional insights here, it does help to confirm the manager's general approach to work identified in the interview.

Mr. S's constructs are,

1. Hard working - Not hard working
2. Broad outlook - Legalistic
3. Dispassionate - Ambitious
4. Warm personality - Cold personality
5. Short term achievement - Vacillation
6. Sense of position - Irresponsible
7. Judgement - Bad judgement
8. Smooth - Abrasive
9. Mature - Immature
10. Independent - Dependent

These are hardly dynamic constructs. His emphasis is on personality, and work values seem to play little part in his construct system. It is interesting that not only is 'independent' a construct, which one would expect from the interview, but 'ambitious' is actually the negative pole of construct 3.

If we turn to Component 1 (figure 43), which accounts for 70% of the variance, the three constructs that one might classify as work values, C1 hard work, C5 short term achievement (which from the negative pole would seem to mean being decisive), and C6 sense of position (which

Component Scores

Manager S (San.)

Component 1

| Construct | Score |
|---|---|
| 6 | .861 |
| 5 | .752 |
| 1 | .687 |
| 8 | -.739 |
| 4 | -.753 |
| 2 | -.875 |
| 3 | -.884 |
| 9 | -.895 |
| 10 | -.902 |
| 7 | -.929 |

Figure 43

Manager S (Sandvik)

Distance between elements

| Element | E1 | E10 | E12 |
|---|---|---|---|
| 1 | -- | .607 | .459 |
| 2 | .824 | .785 | .624 |
| 3 | .717 | .482 | .540 |
| 4 | 1.392 | 1.178 | 1.157 |
| 5 | 1.795 | 1.680 | 1.590 |
| 6 | .608 | .775 | .741 |
| 7 | 1.081 | .936 | .967 |
| 8 | 1.183 | .941 | .958 |
| 9 | 1.331 | 1.155 | 1.111 |
| 10 | .607 | -- | .430 |
| 11 | .399 | .776 | .535 |
| 12 | .459 | .430 | -- |

Table 20a

Relations between constructs and self elements

| Construct | E1 | E10 | E12 |
|---|---|---|---|
| 1 | 141.1 | 120.8 | 120.7 |
| 2 | 28.8 | 63.2 | 34.9 |
| 3 | 35.1 | 25.2 | 31.0 |
| 4 | 55.9 | 54.6 | 56.4 |
| 5 | 147.8 | 106.9 | 131.5 |
| 6 | 155.1 | 117.6 | 134.4 |
| 7 | 39.1 | 30.9 | 27.9 |
| 8 | 54.3 | 54.1 | 68.7 |
| 9 | 40.6 | 27.8 | 35.8 |
| 10 | 25.3 | 46.6 | 42.5 |

Table 20b

DISTANCE BETWEEN ELEMENTS

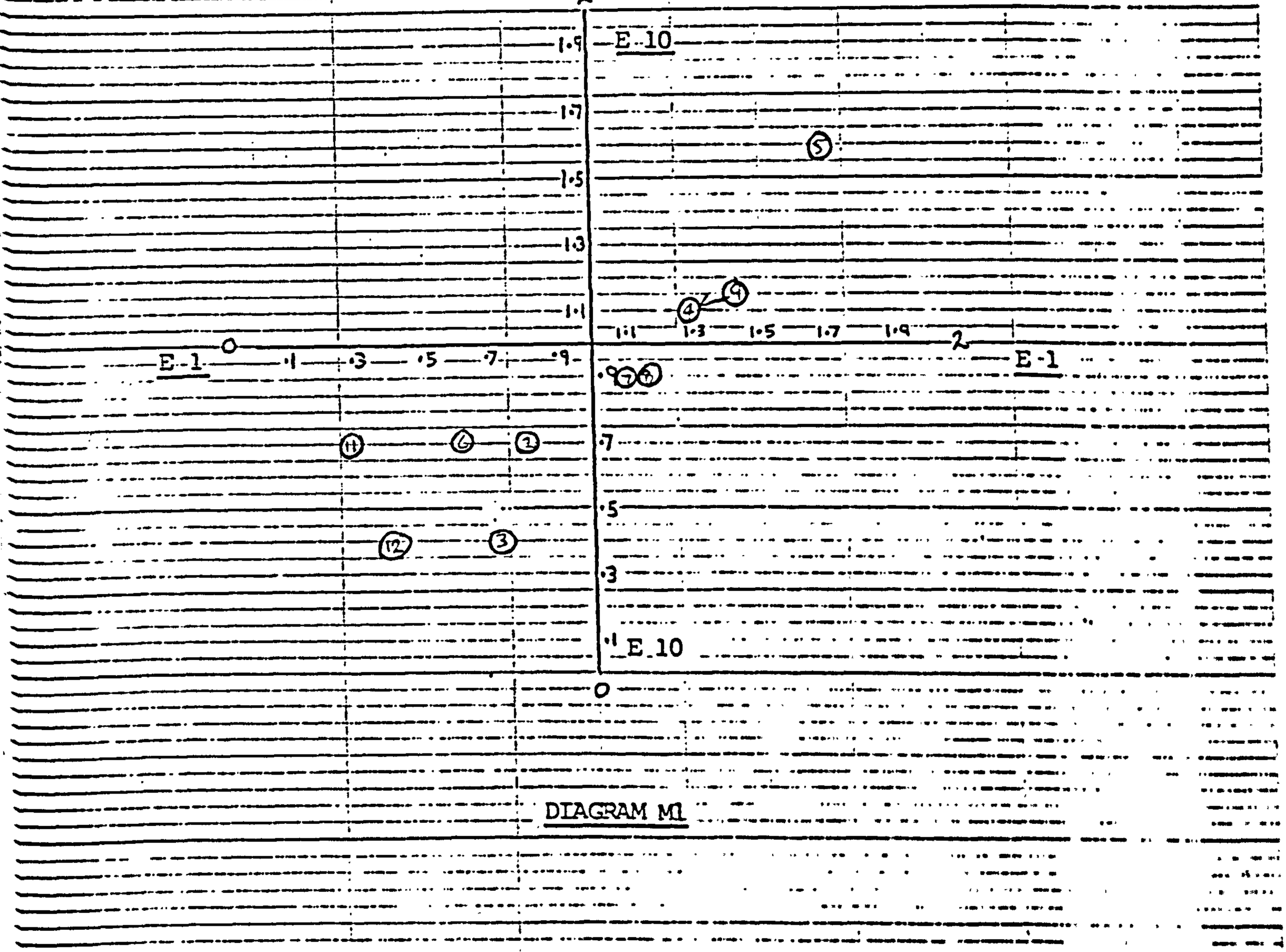
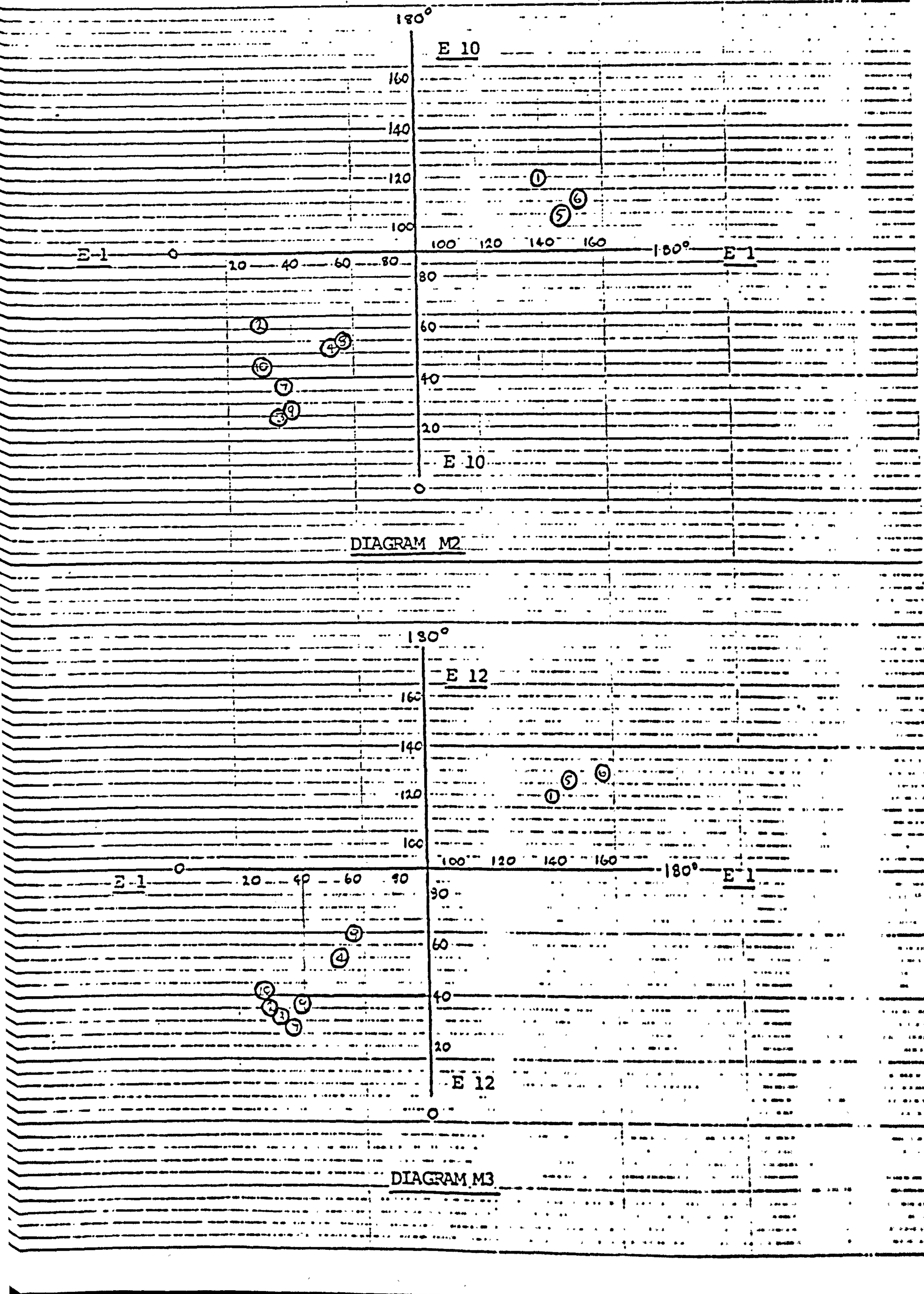



DIAGRAM M1

# RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS



again from the negative pole means responsible), are all on the opposite dimension to his self elements. His most salient constructs are, C7 judgement, C10 independent, C9 mature, and C3 dispassionate (the negative is ambitious).

His construct/element distances (table 20b) reveal that on E1 he sees his present self as not hard working (E1/C1 141.1), vacillating (E1/C5 147.8) and irresponsible (E1/C6 155.1). His E10 distances also show that ideally on all these three constructs he still tends to their negative side. Interestingly enough, table 20a, shows that while E1/E12 are somewhat distant, this is not great (.459), and his construct/ element plot (diagram M3) confirms this. Overall, he neither values hard work, nor feels that he displays it.

On table 20b his construct/element distance for C3 'dispassionate - ambitious' indicates that he is not ambitious (E1/C3 35.1) nor wishes to be (E10/C3 25.2). This would seem to be further supported by the great distance (table 20a) between his self elements and element 8, person likely to get on. With an E1/E8 distance of 1.183 he would hardly seem to identify with this role. But then neither would he seem to identify with element 9, someone not likely to get on (E1/E9 1.331).

The repertory grid, then, indicates that there would not seem to be a great deal of conflict between how he sees himself and how he is seen, but confirms that he is independent of the organisation and its roles. The only work person he has much similarity with is E6, colleague liked, but an E1/E6 distance of .608 would hardly suggest he identified particularly closely with him.

APPENDIX 10.4

Area D - Organisational Self Abnormality

A) Manager AB (Sandvik)

Manager AB is the Product Support Manager responsible for the technical product knowledge of all the company's goods. He has a staff of 10 and has been with the company for over 17 years. He is aged 50.

Mr. AB has a strong technical team and he sees his prime tasks as getting the best out of his team and also guiding them on priorities. He also sees increasing the knowledge of the salesmen as important. He does not find this an easy job, but it is interesting and challenging. He feels the job is very important and that he is operating in the 'engine room'.

He feels that people are the key. Products are important, but people are central to the business. He feels he is self motivated. Promotion is no longer important to him and he feels he is now doing something he wants to do. Job satisfaction is crucial and he made a move from GKN to Sandvik for a drop in pay because of job dissatisfaction. Pay is also important and he feels disgruntled because his wage is beginning to drop behind the national average. But he does not feel that pay motivates or demotivates him. Job satisfaction is more important.

The external manager's comments were that Mr. AB was a very good specialist, but would need a lot of development to become a generalist manager. He had doubts that this was possible as, at times, he was highly dependent on others. He is a below average performer, but he considered him to be a reasonable worker (rating of 3). The manager's self rating for hard work is 2.

What, then, can the repertory grid add to this. Let us start with the managers constructs, which are,

1. Hard working - Not hard working
2. Analytical mind - Self opinionated
3. Broad outlook - Narrow view
4. Completes a task - Does not
5. Depth of vision - Superficial
6. Good speechwriter - Bad speechwriter
7. Ability to summarise - Chaotic mind
8. Customer orientated - Not so
9. Brief - Meticulous
10. To delegate - Not to
11. To encourage - Not to
12. To praise - To admonish
13. To lead (from the back) - Imposing ideas

He concentrates on two types of construct; skill and mental ability constructs (numbers 2,3,5,6,7,9), and people constructs (10,11,12,13). Hard work is not very high on Component 1 (11th) (figure 44) which accounts for 51% of the variance. His first five constructs are, C13 to lead from the back, C7 ability to summarise, C2 analytical mind, C5 depth of vision, and C3 broad outlook. This might seem to suggest a reason why he is not very hard working. He values skills and mental abilities more than hard work.

However, if we turn to his construct/element distances (table 21b) we find the distances for many of his constructs are quite long. Moreover, diagram N3 for E1/E12 shows that six of his constructs (2,6,7,9,11,13) are in the right hand corner, which indicates these constructs are nearer the negative pole, both in terms of his present and organisational selves. Moreover, another 4, (3,5,10,12) are on the negative dimension of E12, and only just positive on E1. C1 is not included with any of these. The distancing of the constructs, especially in terms of his organisational self (E12) might certainly explain the external assessors rating that he was a poor performer. In terms of both the manager's self image and organisational image this would seem to be the case. Moreover, it is interesting that the external manager's assessment that Mr. AB was a slightly better worker

Component Scores

Manager NB (San.)

| Component 1 | |
|---|---|
| Construct | Score |
| 13 | .925 |
| 7 | .879 |
| 2 | .879 |
| 5 | .874 |
| 3 | .874 |
| 11 | .836 |
| 10 | .724 |
| 6 | .712 |
| 12 | .656 |
| 9 | .632 |
| 1 | .443 |
| 8 | .209 |
| 4 | .103 |

Manager E (San.)

| Component 1 | |
|---|---|
| Construct | Score |
| 11 | -.363 |
| 8 | -.652 |
| 6 | -.722 |
| 9 | -.734 |
| 4 | -.770 |
| 7 | -.820 |
| 3 | -.874 |
| 10 | -.891 |
| 5 | -.925 |
| 2 | -.954 |
| 1 | -.977 |

Figure 44

Manager AB (Sandvik)

Distance between elements

| Element | E1 | E10 | E12 |
|---|---|---|---|
| 1 | -- | .942 | .284 |
| 2 | .970 | .860 | .929 |
| 3 | .892 | 1.374 | .760 |
| 4 | .765 | 1.176 | .587 |
| 5 | .688 | 1.399 | .570 |
| 6 | .673 | .494 | .664 |
| 7 | .893 | .493 | .910 |
| 8 | .880 | 1.328 | .760 |
| 9 | .885 | 1.468 | .896 |
| 10 | .942 | -- | .959 |
| 11 | .651 | 1.503 | .633 |
| 12 | .284 | .959 | -- |

Table 21a

Relations between constructs and self elements

| Construct | E1 | E10 | E12 |
|---|---|---|---|
| 1 | 77.8 | 59.2 | 72.5 |
| 2 | 98.3 | 38.6 | 118.4 |
| 3 | 85.2 | 39.8 | 90.0 |
| 4 | 55.7 | 75.4 | 75.6 |
| 5 | 85.2 | 39.8 | 90.0 |
| 6 | 107.2 | 37.2 | 96.4 |
| 7 | 98.3 | 38.6 | 118.4 |
| 8 | 68.5 | 69.5 | 63.7 |
| 9 | 119.1 | 48.2 | 122.6 |
| 10 | 75.3 | 54.9 | 104.4 |
| 11 | 95.5 | 32.1 | 104.0 |
| 12 | 74.8 | 46.0 | 96.8 |
| 13 | 97.9 | 24.1 | 114.4 |

Table 21b

# DISTANCE BETWEEN ELEMENTS

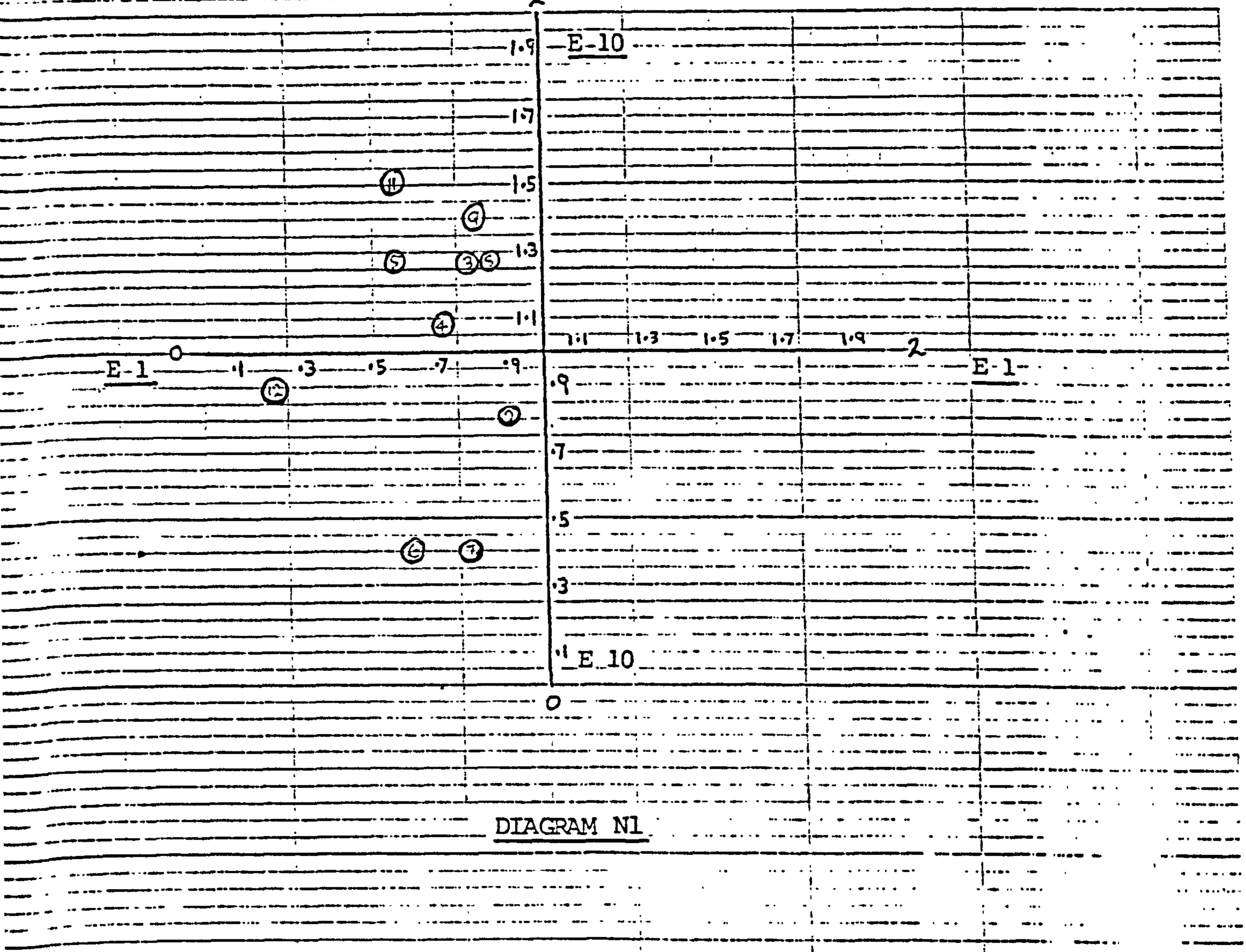



DIAGRAM N1

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

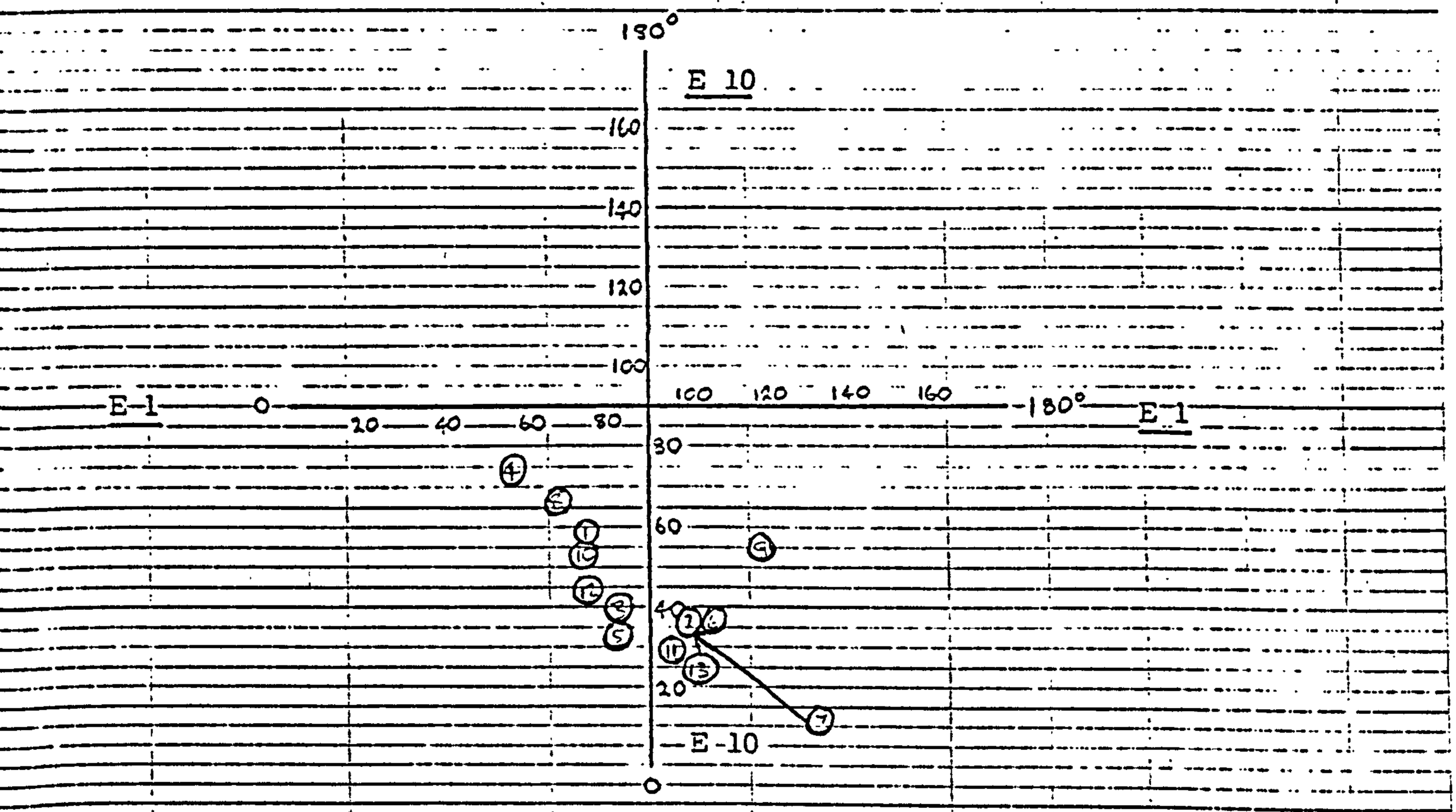



DIAGRAM N2

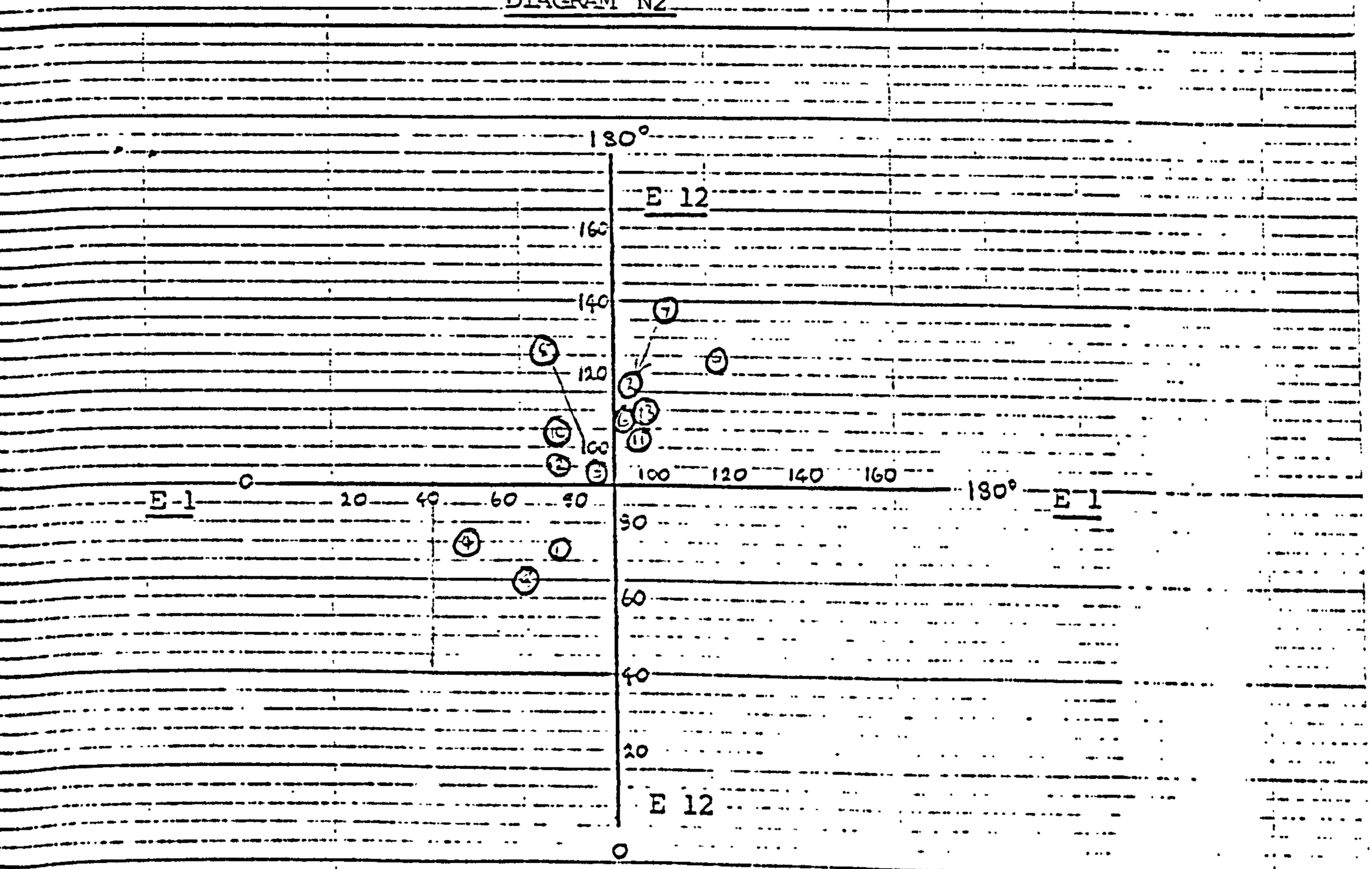



DIAGRAM N3

than performer is reflected in his construct distances. C1 is in the left hand corner, closer to his self and organisational images than most of the other constructs. Yet relative to where many hard working managers place it, it is still fairly distant for this manager.

B) Manager E (Sandvik)

Mr. E is Manager of Sales Distribution for metalworking products. He is 54 and has been with the company for 26 years.

Although Mr. E is now concerned with distribution, his engineering background has continued to influence him and he has two workshops at home where he makes clocks.

He sees efficiency and effectiveness as very important. He treats his job as if he owns the company. It must be profitable in the long term and the customer counts. He feels he is a proud man. He feels he generates his own pressure and works hard. He feels people are very important. He thinks communicating with people is also important. He likes to talk things out, break down barriers and teach people. He likes to help, and he feels people cannot be improved without care.

He is someone who feels that learning is important in life overall. Problem solving comes easily to him. People come and ask his advice and he feels knowledgeable.

He feels that money is important, but it is a short term concern. Job satisfaction is more important to him. He feels people are important and the business is related to personal relationships. Promotion is no longer important, although it was when he was younger.

The external manager's assessment was that Mr. E's performance was now waning, but he was unlikely to admit to it. He had been with the company a long time and had a variety of jobs including managing the drawing office and managing the commercial office. Not as dynamic as he was, Mr. E was rated at 3 for hard work. The manager's own rating for hard work is 1.

In relation to the repertory grid, the manager's constructs are as follows,

1. Hard working - Not hard working
2. Good communicator - Bad communicator
3. Adaptability - Resents change
4. Comfortable to communicate with - Difficult
5. Effectiveness - Less effective
6. Helpful - Less helpful
7. Willingness to learn - Less willing to learn
8. More tolerant - Less tolerant
9. Socially aware - Less socially aware
10. Responsible attitude - Less responsible
11. Constantly learning - Not learning

His constructs display more emphasis on relating to people (constructs 4,6,8,9) than the previous manager. His only really dynamic construct is C5 effectiveness, but both this and C1 are included in his top five constructs on Component 1 (figure 44). The other three are, C2 good communicator, C10 responsible, and C3 adaptability. C11 constantly learning, is last.

If we turn to the manager's construct/element relations (table 22b), C1 also figures strongly here. It has the shortest distance on E1 (21.8) and also on E10 (32.2). However, possible problems are highlighted, and the possible reason for the discrepancy between self and external rating for hard work, if we look at the construct distances on E12. The C1/E12 distance is quite high (72.8) and the external rating is thus understandable. But many of the other constructs are also high. The manager thinks he is seen as resenting change, difficult to communicate with, less willing to learn and less tolerant. Thus one could understand from this also, why the external manager feels that Mr. E is waning. This construct discrepancy is displayed in diagram 03.

Unfortunately, it is difficult to understand from the data, why the manager feels he personally reflects his constructs, but feels he is not seen as doing so. Table 22a shows there is no particular discrepancy between E1/E10 (.382), or that he fails to identify with the person responsible for his career (E1/E3, .226). What affect the

Manager E (Sandvik)

Distance between elements

| Element | E1 | E10 | E12 |
|---|---|---|---|
| 1 | -- | .382 | .633 |
| 2 | .561 | .497 | .904 |
| 3 | .226 | .308 | .744 |
| 4 | .725 | .694 | .835 |
| 5 | 1.760 | 1.666 | 1.538 |
| 6 | .274 | .377 | .532 |
| 8 | .846 | .855 | .883 |
| 9 | 1.414 | 1.415 | .957 |
| 10 | .382 | -- | .702 |
| 11 | .945 | .922 | .922 |
| 12 | .633 | .702 | -- |

Table 22a

Relations between constructs and self elements

| Construct | E1 | E10 | E12 |
|---|---|---|---|
| 1 | 21.8 | 32.2 | 72.8 |
| 2 | 24.1 | 35.1 | 67.4 |
| 3 | 34.8 | 48.8 | 102.2 |
| 4 | 53.5 | 38.2 | 113.5 |
| 5 | 24.7 | 36.4 | 58.3 |
| 6 | 39.1 | 67.6 | 61.3 |
| 7 | 44.5 | 50.5 | 104.5 |
| 8 | 54.0 | 46.9 | 114.3 |
| 9 | 40.6 | 43.3 | 52.9 |
| 10 | 32.1 | 33.6 | 67.6 |
| 11 | 61.7 | 71.5 | 60.5 |

Table 22b

## DISTANCE BETWEEN ELEMENTS

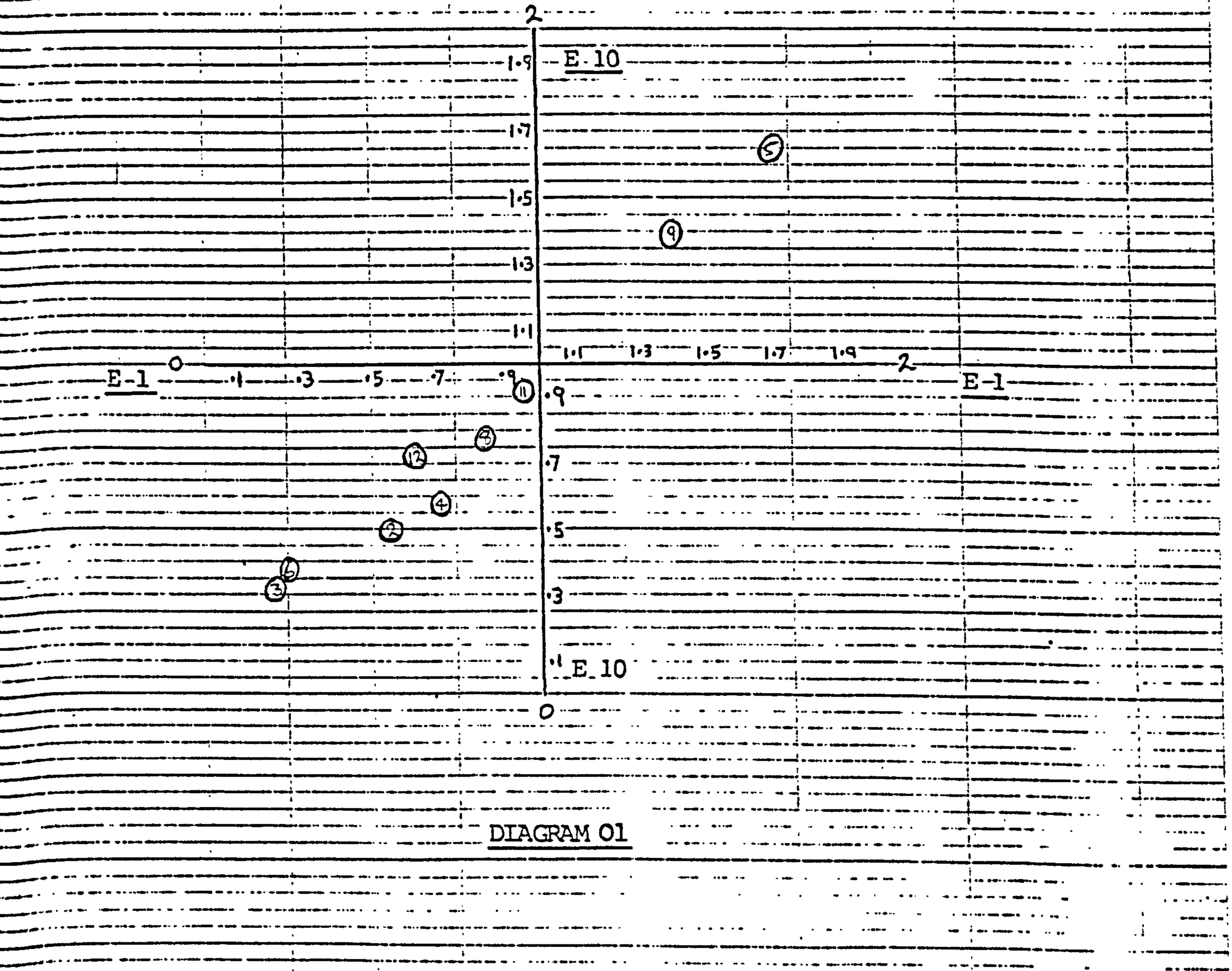



DIAGRAM 01

## RELATIONS BETWEEN CONSTRUCTS AND SELF ELEMENTS

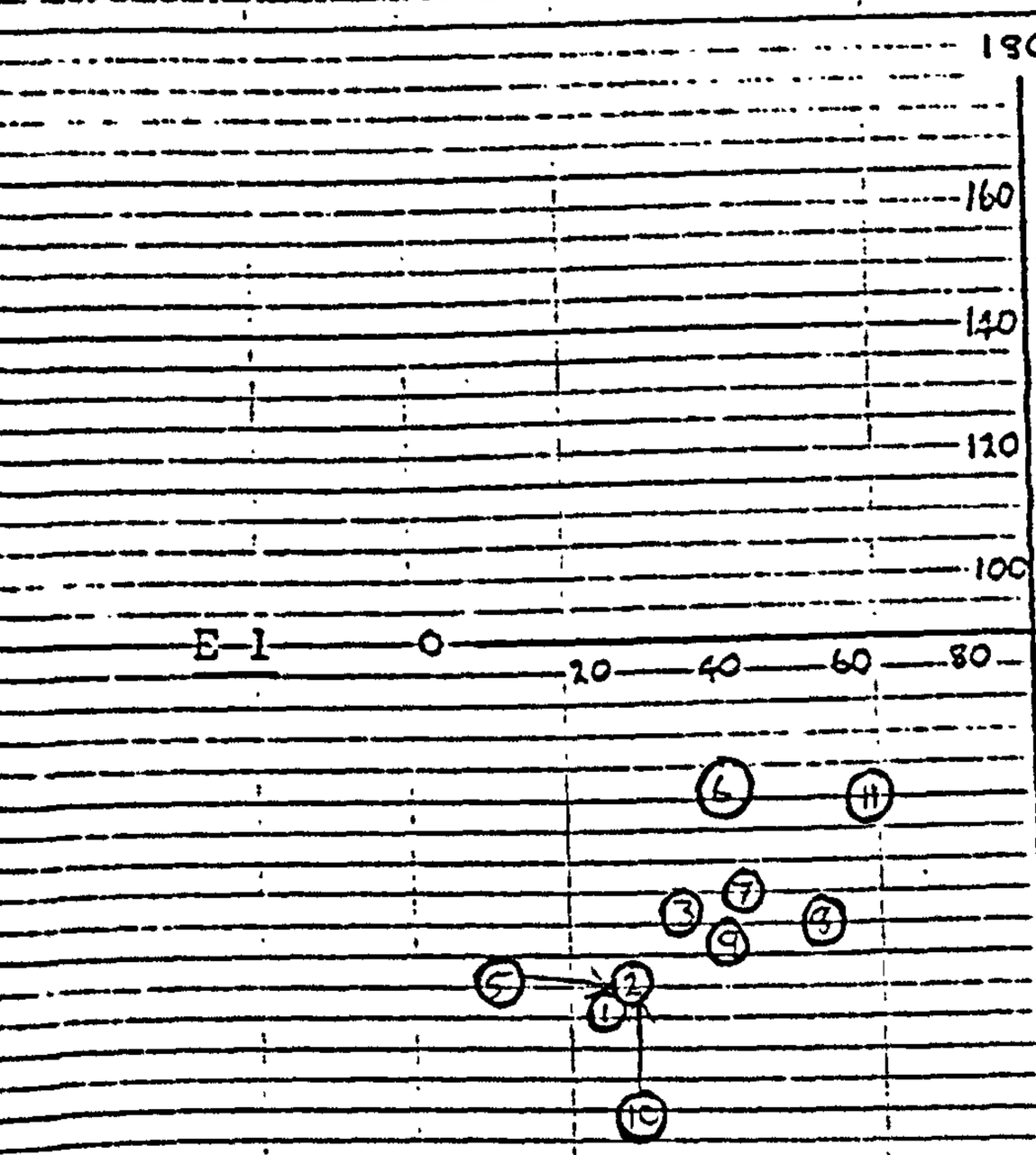



DIAGRAM 02

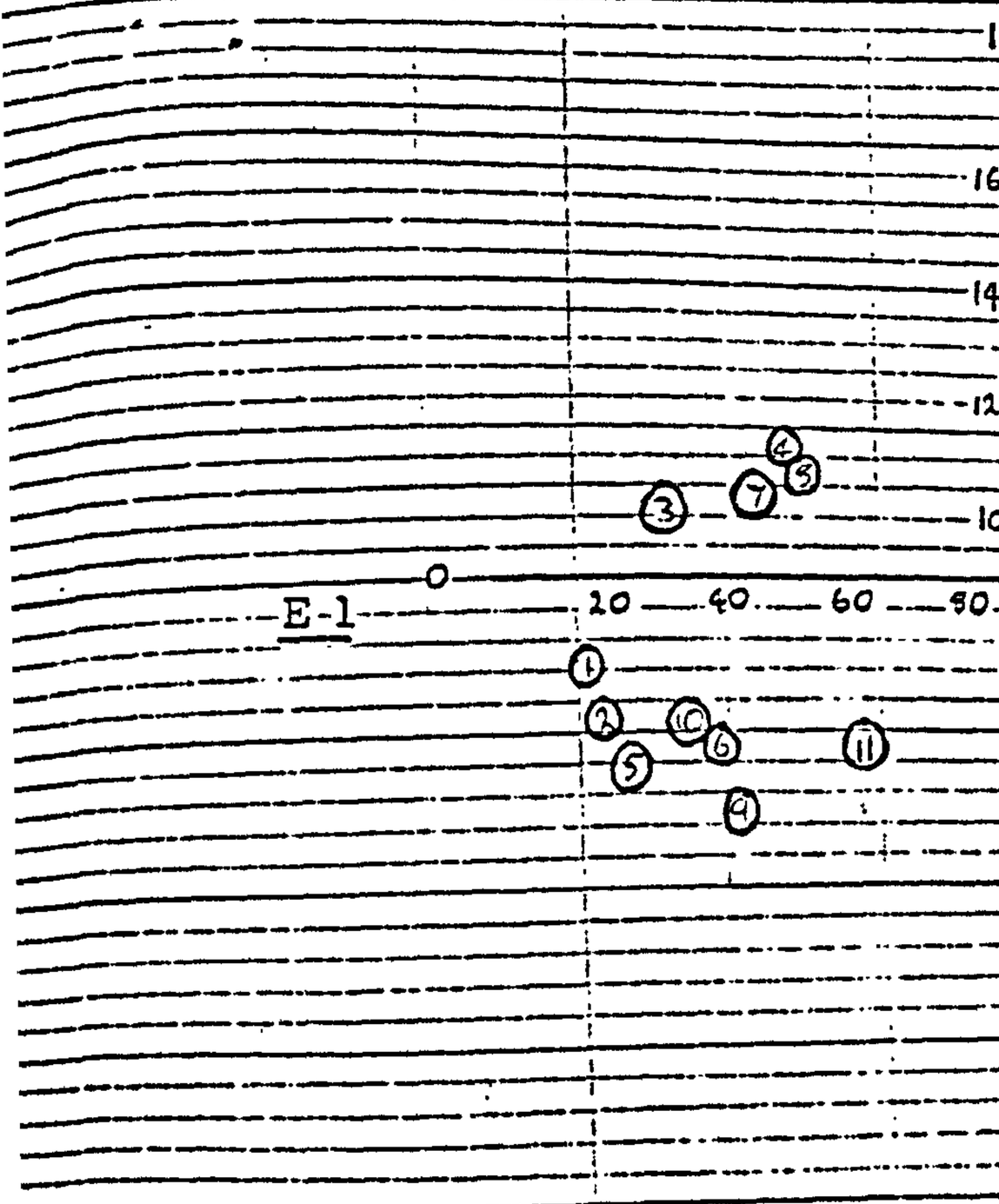



DIAGRAM 03

E1/E12 construct discrepancy should have is also difficult to say. It may not, in effect, actually be affecting his effort. The manager does not think so, although others do. Nevertheless, one might conclude that such a discrepancy will probably have some affect if it continues. If one feels one is constantly being seen as acting in a way contrary to how one feels one is acting, for instance, not working hard when one is, then it would seem likely that eventually one might stop working hard; a kind of self fulfilling prophesy. But even so, this would still depend on the extent to which hard work was valued. If the arguments of this thesis are correct, because C1 is held by the manager so highly in his construct system, one would presume he would continue to work hard, despite the self discrepancy, because it is an important aspect of him.